

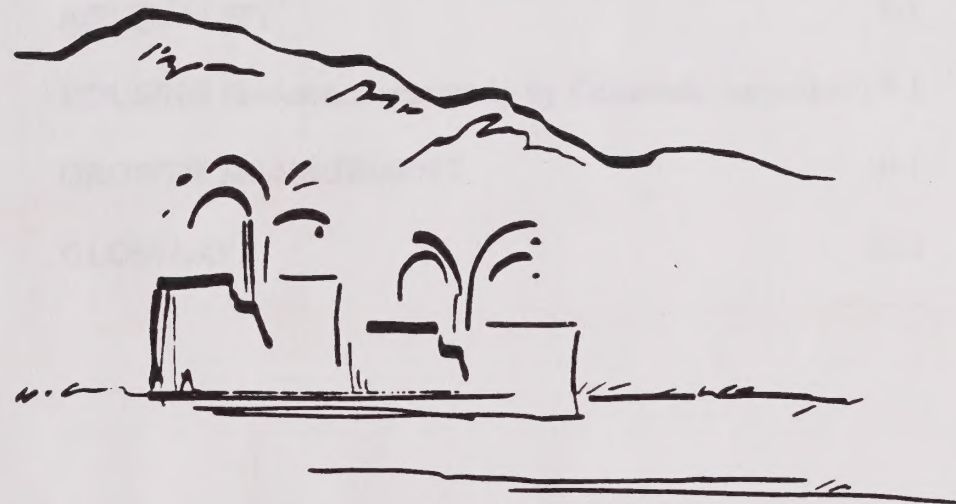
DRAFT
GENERAL PLAN UPDATE

CITY OF
FOUNTAIN VALLEY

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CHAPTER 1.0

INTRODUCTION

1.1 PROJECT SETTING

The City of Fountain Valley is located in the northern portion of the County of Orange, 30 miles southeast of Los Angeles, along the Santa Ana River. The City is in close proximity to major Orange County attractions including the Pacific Ocean (4 miles); Orange County's John Wayne Airport (6 miles); the County Administration and Judicial Center (4.5 miles); Disneyland and Knott's Berry Farm (9 and 13 miles, respectively). Figure 1-1, Regional Location, shows the City's location in a regional context. Fountain Valley is bordered by the Cities of Costa Mesa to the east, Santa Ana to the north and east, Huntington Beach to the west and south, and Westminster and a portion of Garden Grove to the north. The San Diego Freeway (I-405) runs in a northwest to southeast direction, bisecting the City. Figure 1-2, Local Vicinity, shows the City's location in a local context.

The City of Fountain Valley consists of 9.75 square miles, and with the adopted Sphere of Influence contains approximately 9.8 miles. The sphere is comprised of two parcels located on the northeast edge of the city adjacent to the Santa Ana River. Figure 1-3, Sphere of Influence, shows both the existing corporate boundary and the Sphere of Influence area. For the purpose of this General Plan, the city and the sphere areas are the "planning area."

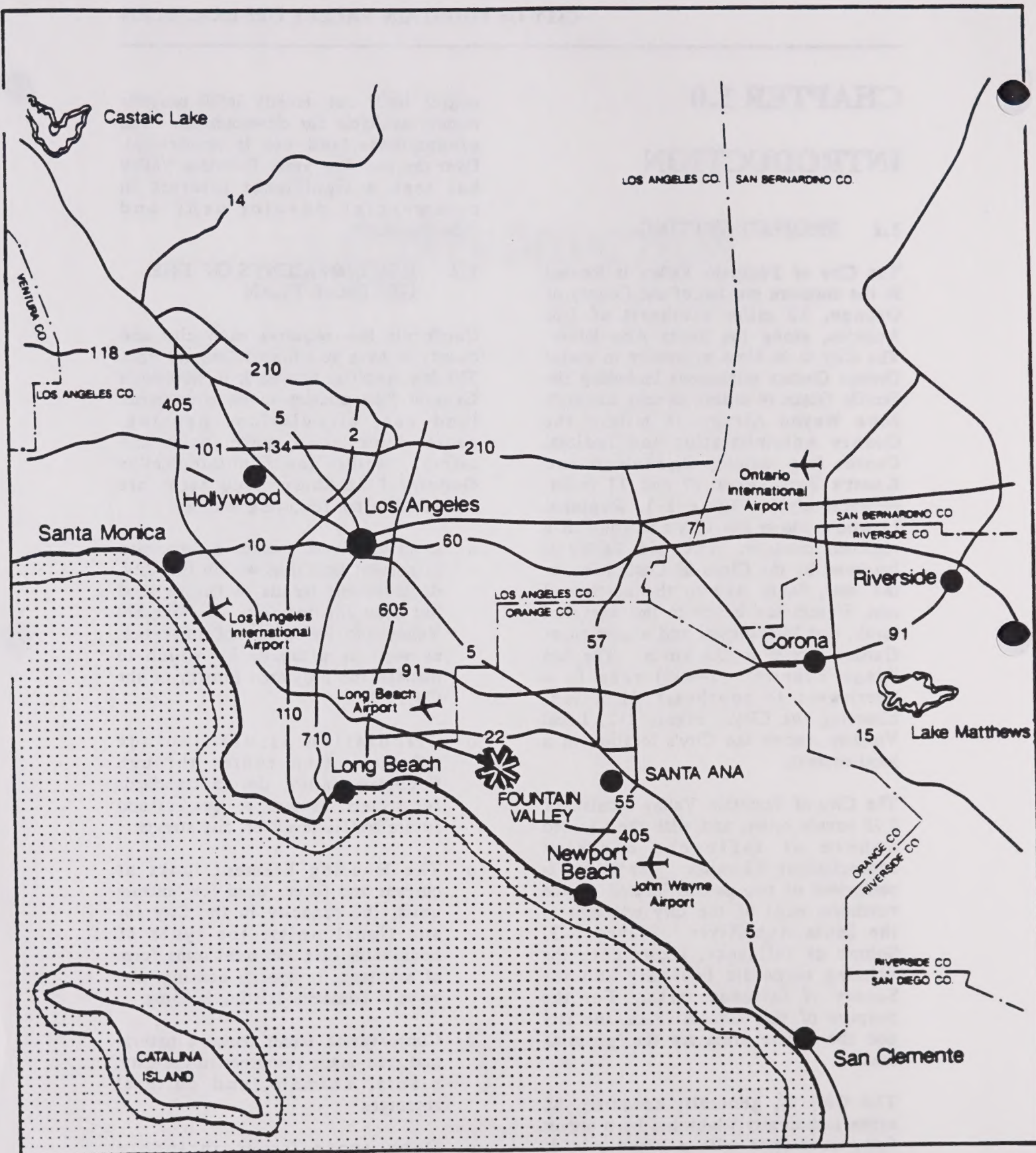
The City is, generally speaking, an urban community which has been almost fully developed with a broad mix of land uses including housing, commercial, industrial, public, recreation and open space uses. Fountain Valley is to a large

degree built out; mostly infill projects remain available for development. The predominate land use is residential. Over the past few years Fountain Valley has seen a significant interest in commercial development and redevelopment.

1.2 REQUIREMENTS OF THE GENERAL PLAN

California law requires each city and county to have an adopted General Plan. The law specifies that each jurisdiction's General Plan address seven issue areas: land use, circulation, housing, conservation, open space, noise and safety. Within the Fountain Valley General Plan these issue areas are addressed in the following manner.

- o Land use issues include a discussion of current land uses within the City, development trends, a future land use plan for the City of Fountain Valley and its Sphere of Influence, as well as a means by which to manage the projected growth of the City.
- o Circulation issues include transportation routes through Fountain Valley, design standards for streets, as well as current and future traffic levels on city streets.
- o The Housing Element looks at current and future need for housing units, the capacity in the City for additional units, the types of households that will need some form of assistance or special housing, and ways to conserve existing housing.
- o Conservation issues concern natural and man-made resources in the City: plants, animals, and cultural resources.
- o Open space issues include a discussion of parks and recreation resources.



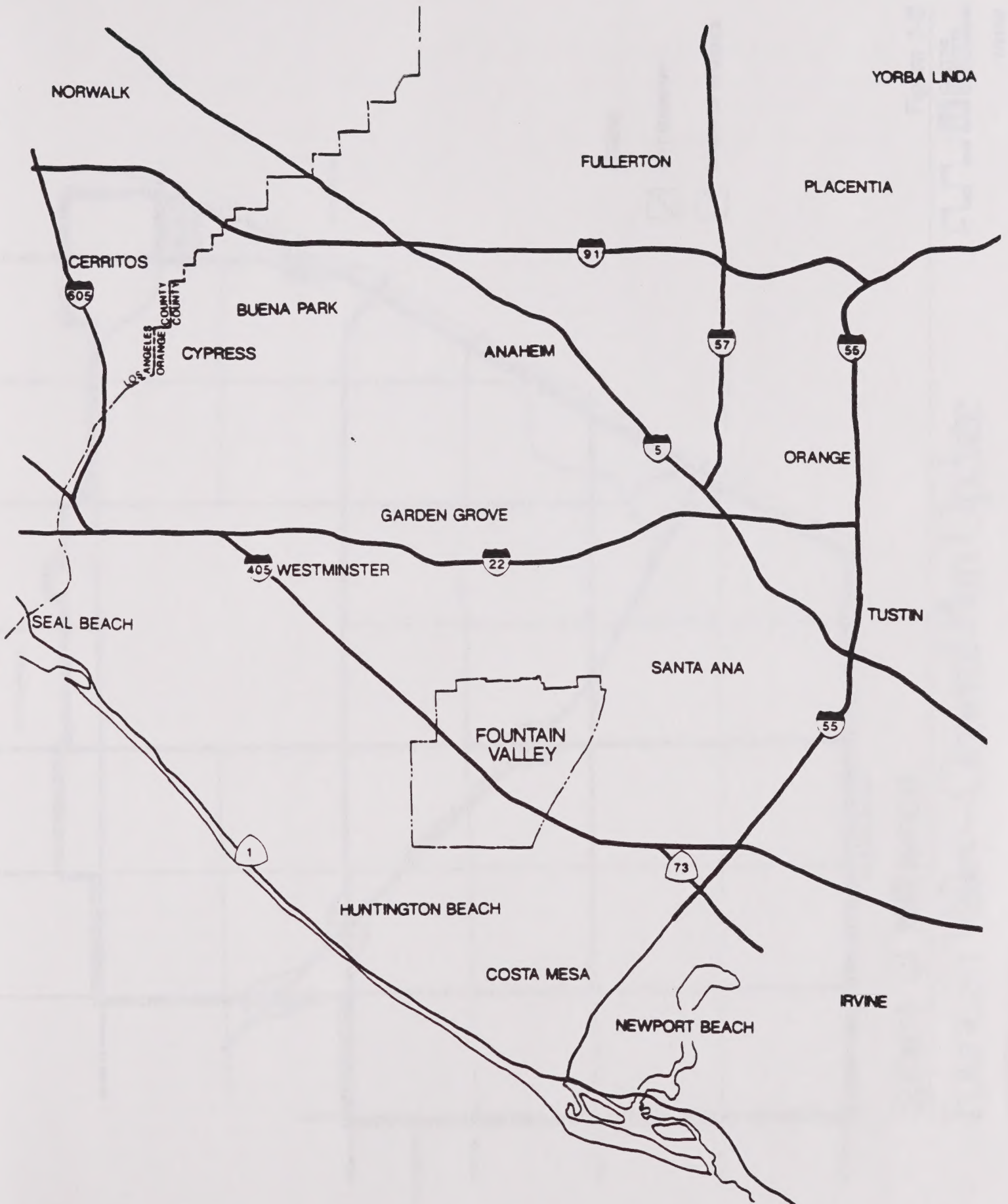
Regional Location
Fountain Valley

Figure



THE
KEITH
COMPANIES

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Local Vicinity

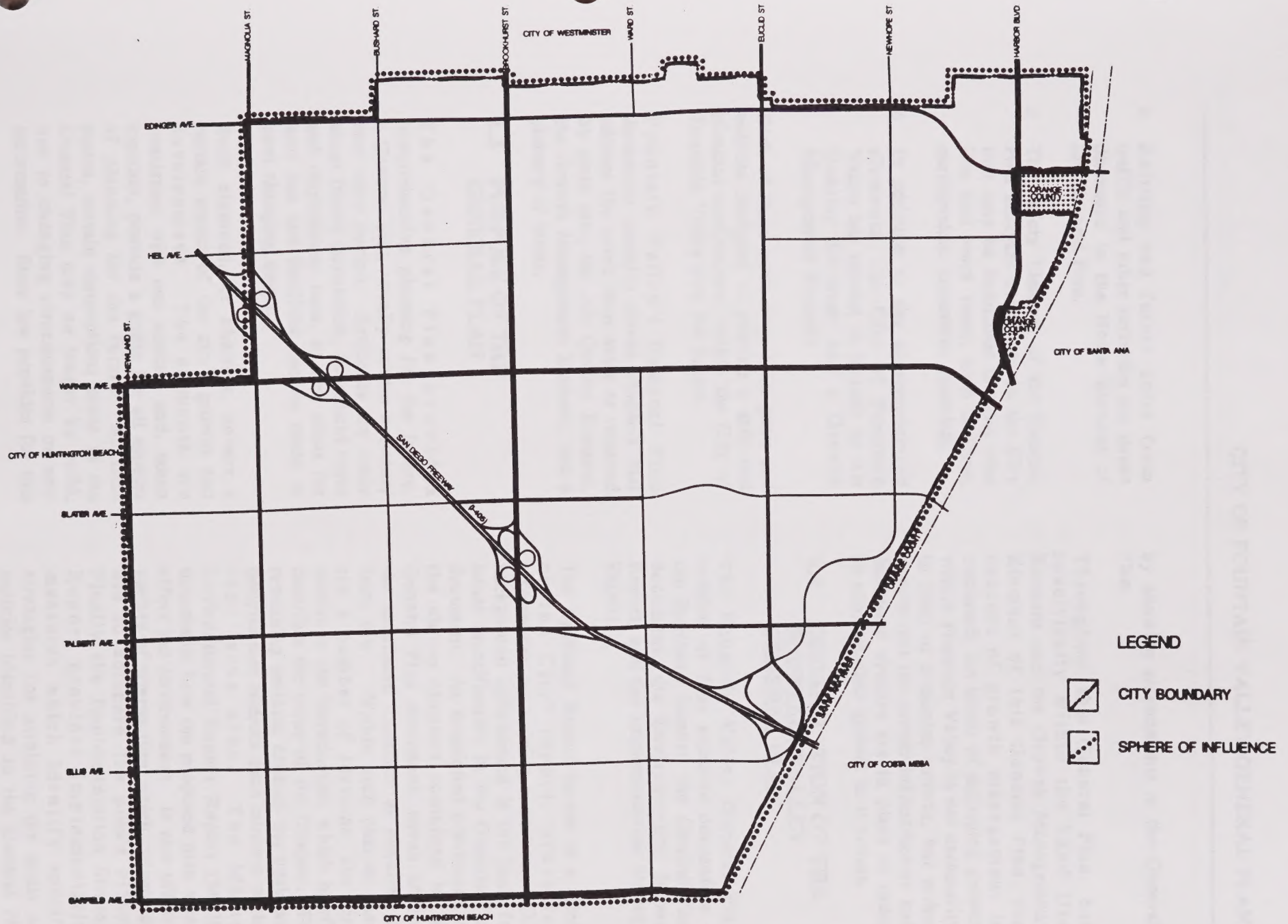
Fountain Valley

Figure 1-2



THE
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COMPANY
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Sphere of Influence Fountain Valley—General Plan Update

Figure 1-3



7/31/92

UNITED STATES - QUALITY PROGRAM
BUREAU OF REVENUE



Actual Results
Target Results
Trend

- o Existing and future noise from traffic and other activities are issues discussed in the Noise Element of the General Plan.
- o The Safety Element of the General Plan analyzes conditions in the City that may be hazardous to those who live and work there, such as fires, earthquakes, hazardous materials.
- o In addition to the aforementioned elements, the City of Fountain Valley has elected to include an Air Quality Element and a Growth Management Element.

Each of these issue areas have goals and policies designed to provide a safe and pleasant environment within the City of Fountain Valley into the future.

Fountain Valley's General Plan document contains eleven chapters that address the seven issue areas as required by state law, the Air Quality Element, the Growth Management Element, and a glossary of terms.

1.3 PURPOSE OF THE GENERAL PLAN

The General Plan provides comprehensive planning for the future, a General Plan usually covers a twenty year time period. Estimates are made about future population, household types and employment base, so that plans for land use and facilities can be made to meet changing needs.

Each element, or chapter, covers a certain aspect of the city's growth and development. The elements are consistent with one another and, taken together, provide a guide for all aspects of planning for the future. As time passes, certain assumptions made in the General Plan may no longer be valid, due to changing circumstances or new information. State law provides for this

by allowing amendments to the General Plan.

Throughout this General Plan, but specifically within the Land Use Element and the Growth Management Element of this General Plan, the concept of growth management is discussed; the intent of managing growth within Fountain Valley is not necessarily to limit or minimize growth, but rather ensure that the proper infrastructure and backbone systems are in place in order to accommodate growth as it occurs.

1.4 ORGANIZATION OF THE FOUNTAIN VALLEY GENERAL PLAN

The Fountain Valley General Plan consists of four separate documents - the Synthesis Report, the General Plan document, the Environmental Impact Report, and the Implementation Strategy Report.

The Synthesis Report serves as a "State of the City" report, providing information on existing conditions. This background information is the basis for issues identification in the General Plan document. As mentioned previously, of the eleven chapters contained in the General Plan document, seven address the mandated elements as required by State law. Within each chapter there are a number of sections, the first section is the Introduction which briefly describes the scope of the Chapter. The remaining sections contain the goals and policies that address each concern within that issue area. The Master Environmental Impact Report (MEIR) documents how the proposed plan would affect the environment. It also offers a variety of alternatives which citizens can use to compare the plan's effects. Finally the Implementation Strategy Report provides implementation measures which identify specific strategies for attaining the goals and policies identified in the General Plan document.

1.5 GENERAL PLAN PHILOSOPHY

Fountain Valley's approach to the General Plan emphasizes four philosophical issues:

1. The General Plan must be developed by the same citizens it seeks to serve if it is to be effective. It cannot be imposed artificially on the citizens. The effort leading to this General Plan included start to finish public participation beginning with a series of Citizen Advisory Committee (CAC) meetings; interviews were conducted with key department heads, Planning Commissioners and City Council members; workshops with Planning Commission and City Council; as well as a series of conventional public hearings.
2. The Plan must reflect the uniqueness of Fountain Valley. Throughout its length, the General Plan has been written to recognize and reinforce the same characteristics which make Fountain Valley unique and which have shaped Fountain Valley physically and socially.
3. The Plan must be written in an easily understandable fashion. This means simply that no buzzwords have been used, technical terms have been defined in a glossary, and assertive policies have been tied to a specific target or goal.
4. The Plan must be technically competent. Upon completion, the General Plan will not only meet but far exceed the minimum requirements of California State Law.

2.0 LAND USE



CHAPTER 2.0

LAND USE

2.1 INTRODUCTION

Government Code Section 65302(a) mandates local municipalities to include within their general plans a land use element as follows:

"The General Plan shall include a land use element which designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities and other categories of public and private uses of land. The land use element shall include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan. The land use element shall identify areas covered by the plan which are subject to flooding and shall be reviewed annually with respect to those areas..."

The Land Use Element of the General Plan has the broadest scope of any of the required components of the General Plan. In addition to the requirements listed in the Government Code, above, it has also been established that, while the location of a particular land use may be expressed in general terms, a property owner must be able to identify the General Plan designation for his or her parcel from the land use diagram contained in the Land Use Element.

The City of Fountain Valley Land Use Element serves as the framework for the goals and policies contained in the other elements.

The primary implementation mechanism for the Land Use Element is the Zoning Ordinance. For this reason, State law requires that the Land Use Element and Map be consistent with the Zoning Ordinance and Map. (Section 65860 of the Government Code requires that local zoning ordinances be consistent with their General Plans.)

2.2 LAND USE: ISSUES AND OPPORTUNITIES

Prior to beginning work on revising the City of Fountain Valley's General Plan, an extensive effort was made to identify citizens' concerns for the future of their City. Interviews of City decision makers and key department heads were conducted and the General Plan Citizen Advisory Committee devoted an entire meeting to defining the issues facing their City. All of these sources are reflected in the specific goals and policies of the General Plan elements; a summary of those issues which affect the Land Use Element follows:

- o The City is primarily built out, with less than 2% of the City vacant. Approximately 3,040 acres, or 60% of the City is devoted to residential land uses; 361 acres, or 7%, to commercial uses; 450 acres, or almost 9%, represent industrial land uses; public facilities and schools represent 362 acres, or 7%; parks and open space make up 801 acres, or 15.5%.
- o The City has made a successful effort to provide a wide range of housing units appropriate to a diversity of residents' socio-economic requirements. In general, residents of the City believe there is a good balance of residential, commercial and industrial land uses.
- o The City has two small unincorporated areas within its Sphere of Influence along the

eastern boundary adjacent to the Santa Ana River.

- o The City has adopted redevelopment plans for two areas within the City: the City Center and the Industrial Area, adjacent to the Santa Ana River Channel, these two areas combined total almost 700 acres.
- o There are two areas of the City which are unique unto themselves; the Orange County Sanitation District and Orange County Water District property and the Fountain Valley Community Hospital with its adjacent vacant properties. Both sites, due to their unusual qualities, would be best developed, redeveloped and/or intensified through the preparation of master plans, depicting existing and future uses with detail and precision; and the areas themselves, interrelated with the City as a whole within the context of the Land Use Element.
- o In recent years, four schools and a school maintenance facility within the City have been closed. Three of these sites have been planned for development: Harper and McDowell Elementary School and the Lighthouse Lane property, which has in the past, been used for bus storage. Two other school sites are currently being leased, these include Fountain Valley and Nieblas Elementary Schools.
- o There are a number of commercial sites which are considered to be underutilized or in need of revitalization or rehabilitation, ranging in size from small neighborhood convenience centers to larger centers.
- o There are concerns about the changing demographics of the community as well, these concerns are more of a social nature - the

"graying of the City", changes in cultural backgrounds, as well as the provision of housing for the disabled and the handicapped.

- o With the General Plan Update, there are opportunities to prevent spot zoning and re-examine the zoning code and the uses allowed under the City's current zoning.
- o As discussed in greater detail in the Parks, Recreation and Open Space Element, the community is extremely fortunate to have the open space and recreational amenities that it has, with Mile Square Park, the City's park to population ratio is over twelve acres of parkland for every 1,000 residents (five acres per 1,000 residents is considered the norm throughout the state). In addition, the Southern California Edison easement offers an important open space amenity and can be used in conjunction with adjacent parklands.

Land Use Constraints

The constraints on potential land uses within the City are divided between those that are a part of the City's natural endowment, and those which result from man-made structures and activities.

In the first category, natural features:

- o Almost the entire City is within the flood hazard area, flooding of between one to three feet may be expected in extreme conditions in the event of a 100 year storm.
- o Although there are no seismic faults within the City, nor are there any Alquist-Priolo Zones, the City is subject to earthquake shaking, as are all cities within the Southern California region. There is a high

liquefaction potential in those areas along the Santa Ana River and south of the I-405 Freeway.

Constraints resulting from man made structures and activities include the following:

- o The San Diego (I-405) Freeway bisects the City presenting both opportunities and constraints for the City (opportunities in that the City has direct access from the freeway as well as visual freeway frontage for commercial and/or industrial users, with constraints being noise and the fact that the City is literally bisected). This Freeway provides the primary source of regional access to the city with interchanges at Magnolia/Warner Avenue, Brookhurst Street and Euclid/Ellis Avenue.
- o The Orange County Sanitation District Treatment Plant is located on Ellis Avenue within the City. Constraints associated with the plant include the compatibility of adjacent land uses, use of hazardous materials, and odors emanating from the plant.
- o The Southern California Edison easement which extends in a north/south direction in the westerly area of the City offers both opportunities and constraints as well. The easement provides an open space amenity and can be used in conjunction with adjacent parks to expand the park area. However, there are also concerns with regard to the safety of the overhead lines and the potential impacts associated with the electromagnetic field.
- o There are some industrial and commercial businesses located throughout the City which are involved in the processing, storage, and/or manufacture of a wide variety of hazardous materials. The

most vulnerable area of the City is the east side, from Warner Avenue, south to Garfield Avenue and along the Santa Ana River.

2.3 LAND USE DESIGNATIONS

The City of Fountain Valley General Plan Update Map displays land use designations which correspond closely to the land use categories contained in the City's Zoning Ordinance. The land use designations indicate the nature, intensity and density of development permitted for each land use category. The location and extent of land uses for each map designation is shown on the Fountain Valley General Plan Update Map, Figure 2-1.

Residential Land Uses

Table 2-1 shows the equivalent zoning categories for the residential land use designations. As indicated above, the zoning categories are found in the Fountain Valley Zoning Ordinance. Population densities shown in this Table are based on Fountain Valley's average household size of 2.98 persons per household as estimated in the 1990 U.S. Census. This figure is multiplied by the permitted number of dwelling units, then rounded to the nearest whole number to indicate the estimated population per acre in each of the land use designations or zoning categories. A description of each classification follows.

Low Density Residential provides for the use of single family dwellings of a permanent character and in permanent locations with densities of up to five dwelling units per net acre.

Low-Medium Density Residential allows for the development of smaller lot single family residences, two-family dwellings, multi-family dwellings, and apartments.



- RESIDENTIAL**
DENSITY (DWELLING UNITS PER NET ACRE)
- LOW DENSITY RESIDENTIAL (UP TO 5 DU/AC)
 - LOW MEDIUM DENSITY RESIDENTIAL (UP TO 10.8 DU/AC)
 - MEDIUM DENSITY RESIDENTIAL (UP TO 15 DU/AC)
 - HIGH DENSITY RESIDENTIAL (UP TO 20 DU/AC)
- COMMERCIAL**
- LOCAL COMMERCIAL (UP TO .35 FAR)
 - GENERAL COMMERCIAL (UP TO .50 FAR)
 - OFFICE COMMERCIAL (UP TO .60 FAR)
- INDUSTRIAL**
- COMMERCIAL MANUFACTURING (UP TO 1.0 FAR)
- PUBLIC FACILITIES**
-
- OPEN SPACE AND PARKS**
- PARK
 - OPEN SPACE
 - GOLF COURSE
- SPECIAL STUDY AREA**
-
- SPECIFIC PLAN AREA**
-

Land Use Plan

Fountain Valley—General Plan Update

Figure 2-1



ZONING DEFINITIONS

- A1 - "GENERAL AGRICULTURE" DISTRICT - allows for agriculture and horticulture uses.
- R1 - "SINGLE-FAMILY RESIDENCE" DISTRICT - permits single-family dwellings of a permanent character and permanent locations, minimum lot size 7,200 square feet.
- NR - "NEIGHBORHOOD RESIDENTIAL" DISTRICT - provides for the same uses permitted under the R-1 zone, except as otherwise permitted, minimum lot size 6,000 square feet.
- R2 - "LOW DENSITY MULTIPLE DWELLING" DISTRICT - allows for the development of one-family dwellings, two-family dwellings, multiple-family dwellings, dwelling groups and apartment houses, minimum lot size 7,200 square feet.
- R3 - "MEDIUM DENSITY MULTIPLE DWELLING" DISTRICT - provides for the development of two-family dwellings, multiple-family dwellings, dwelling groups and apartment houses, maximum density 15 dwelling units per acre.
- R4 - "HIGH DENSITY MULTIPLE DWELLING" DISTRICT - permits the use of two-family dwellings, multiple-family dwellings, dwelling groups and apartment homes, maximum density 20 dwelling units per acre.
- AH - "AFFORDABLE HOUSING" DISTRICT - provides a means of encouraging the construction of affordable housing within residential developments.
- PC - "PLANNED COMMUNITY" DISTRICT - Allows for large scale community planning efforts in order to create superior environments.
- GH - "GARDEN HOMES" DISTRICT - permits residential uses and supporting recreational and open space developments, maximum density 10.8 dwelling units per gross acre.
- CP - "COMMERCIAL, ADMINISTRATIVE AND PROFESSIONAL OFFICE" DISTRICT - allows the development of administrative or professional offices, minimum lot size shall be 7,200 square feet.
- C1 - "LOCAL BUSINESS" DISTRICT - provides for the development of various retail or personal service businesses, minimum lot size shall be 10,000 square feet.
- C2 - "GENERAL BUSINESS" DISTRICT - allows for all uses permitted in the C1 zone in addition to various retail uses, no minimum lot size except as delineated on sectional district maps.
- CM - "COMMERCIAL MANUFACTURING" DISTRICT - allows for a mix of commercial and manufacturing uses.

TABLE 2-1

Land Use and Zoning Equivalence
Residential

<u>General Plan</u>	<u>Zoning</u>	<u>Maximum Density</u>	<u>Per Acre Population</u>
Low Density	A1, R1, PC, NR, AH	5	15
Low Medium Density	A1, R1, R2, PC, NR, GH, AH	10.8	32
Medium Density	A1, R1, R2, R3, PC, NR, GH, AH	15	45
High Density	A1, R1, R2, R3 R4, PC, NR, GH, AH	20	60

1. Estimates based on 2.98 persons/households

Land Use and Zoning Equivalence
Commercial

<u>General Plan</u>	<u>Zoning</u>	<u>Floor Area Ratio</u>
Office Commercial	CP	0.5:1
Local Commercial	CP, C1	0.35:1
General Commercial	CP, C1, C2	0.5:1

Land Use and Zoning Equivalence
Industrial

<u>General Plan</u>	<u>Zoning</u>	<u>Floor Area Ratio</u>
Commercial Manufacturing	CM	0.6:1

The maximum density within this land use category is up to 10.8 dwelling units per net unit acre.

Medium Density Residential provides for the development of duplexes and other attached and detached dwelling units up to fifteen dwelling units per net acre. Single family residential uses are also permitted in this zone, under the appropriate zoning district.

High Density Residential will allow for the development of multi-residential structures and other attached dwelling units up to a density of twenty dwelling units per net acre.

It should be noted that a Density Bonus under the General Plan, and as required by State Law, will allow up to a 25% density bonus when a project is inclusive of affordable housing. The City has a zoning designation of AH, Affordable Housing District, which incorporates a density bonus allowing 25% above the existing zoning. Adjustment to allowed densities will also be considered for special purpose residential uses including senior citizen housing, institutional housing and convalescent housing.

Pursuant to State law mobile home parks are allowed in any of the City's residential zones.

Commercial Land Uses

There are three commercial land use designations proposed in the Fountain Valley General Plan: Office Commercial, Local Commercial and General Commercial. Table 2-1 shows equivalent zoning categories for the commercial land use designations.

Office Commercial is established to accommodate low-scale professional office uses in areas where such development may serve as a buffer between two less compatible land uses.

Businesses such as professional offices, medical offices and financial institutions are appropriate uses in this category. Permitted commercial uses are limited to those directly related to professional office operations. A maximum Floor-to-Area-Ratio (FAR) of 0.60 shall apply to all development within the Office Commercial areas.

Local Commercial provides for convenient, small-scale shopping and personal service uses in close proximity to residential neighborhoods. Permitted uses are limited to small commercial businesses which meet the immediate needs of local residents and which do not generate substantial volumes of vehicular traffic. Development intensity shall not exceed a maximum FAR of 0.35.

General Commercial allows for a wide range of retail and service commercial uses designed to serve county-wide and regional populations. Permitted uses include retail businesses, personal service uses, food and beverage establishments, hotels and motels, automotive sales and repair operations, as well as low intensity professional offices and financial institutions. A maximum FAR of 0.50 is established for any use within this category.

Required floor area ratio for new development in any commercial land use area may be adjusted according to the timing, extent and effectiveness of traffic mitigation measures required in accordance with the Congestion Management Act, Measure M or the Southern California Air Quality Management Plan.

Industrial

The industrial land uses proposed within the General Plan are classified as Commercial Manufacturing, as described

below. Table 2-1 shows equivalent zoning categories for the industrial land use category.

Commercial Manufacturing is established to accommodate a mix of office and clean, light industrial and retail uses within an integrated development setting. Permitted uses include research and development facilities, administrative offices, corporate headquarters and limited amounts of light industrial development and related retail. Service and retail uses incidental to and supportive of these primary uses are also allowed. The maximum FAR within the Commercial Manufacturing category is 1.0.

Public Facilities

The Public Facilities land use designation provides for a variety of public facilities which support the community. These facilities are designated on the General Plan Land Use Map as "Public Facilities" and are further defined on the Community Facilities Plan, Figure 2-2. Each public facility use is discussed below.

Schools include educational facilities, operations and related enterprises which serve as the foundation for allowable uses. The City of Fountain Valley works in close cooperation with the Fountain Valley Unified School District, as well as the Ocean View, Garden Grove Unified and Huntington Beach Union High School Districts, and Coastline Community College, in accommodating future educational needs.

Hospitals are those facilities which are either publicly or privately managed for purposes of providing medical treatment, and include patient beds, emergency room facilities and similar uses.

Fire Stations include the City's two stations, one on Bushard Street and the other on Newhope Street.

Civic Center refers to the City's Civic Center, located on Slater Avenue, near Brookhurst Street. The Civic Center consists of the City Hall, the Community Center, police headquarters, as well as similar accessory buildings. The library found on Slater Avenue behind City Hall is also included in the Civic Center.

Reservoirs, there are two reservoirs within the City, one is located in Cordata Park and the second is located at the northwest corner of Euclid Street and Ellis Avenue.

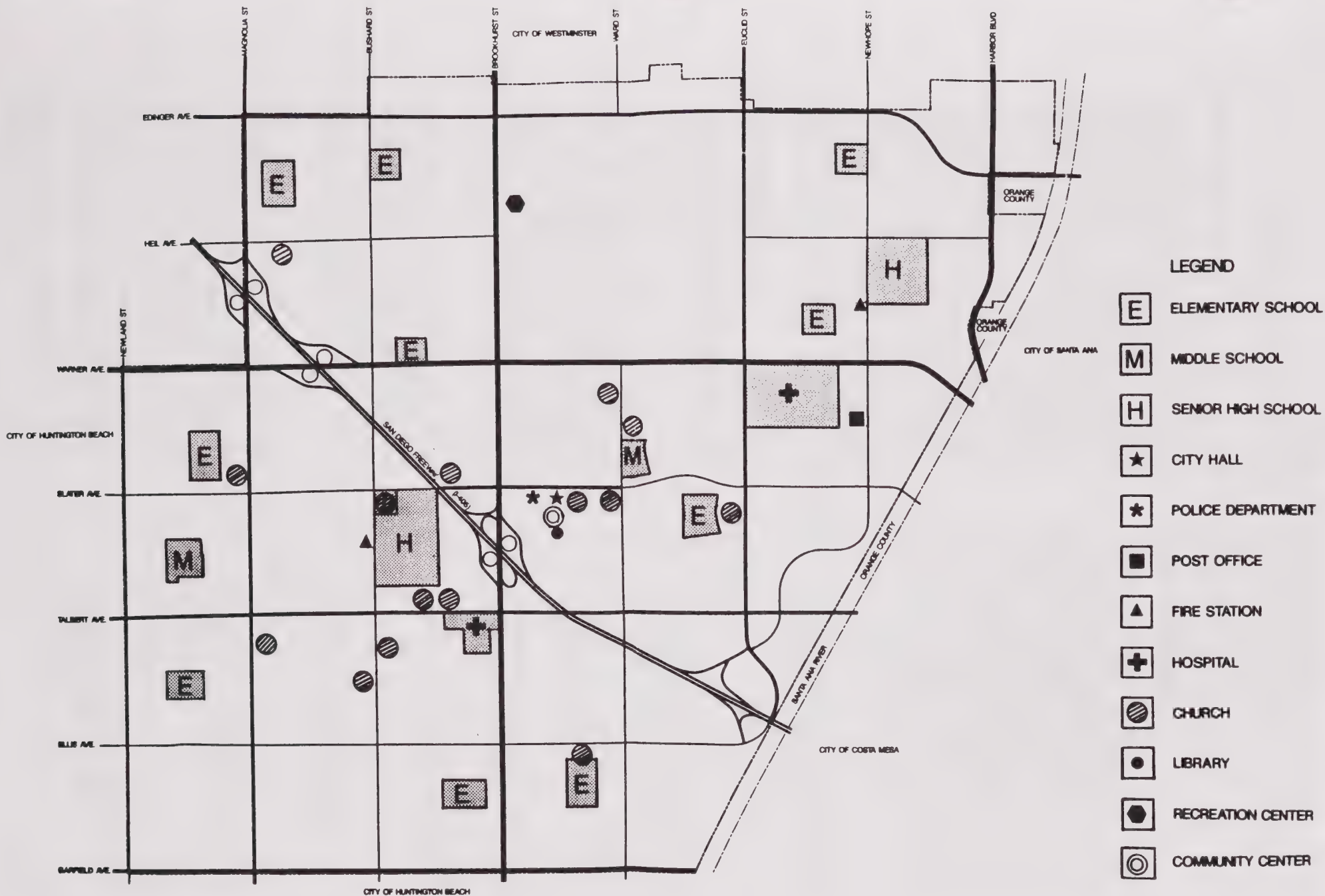
Parks and Open Space

This land use category consists of two primary uses: Parks and Open Space, as described below.

Parks and Open space are those areas designated for recreational purposes, both active and passive, and/or areas which will preserve or enhance the natural environment.

Parks in the City of Fountain Valley consist of Neighborhood, Community or Regional Parks. Neighborhood Parks are those which are designed to serve primarily the neighborhoods in which they are located, while Community Parks serve a larger area and are typically larger themselves. The City has one Regional Park, that being Mile Square Park, which consists of 640 acres of County and City owned and/or maintained property. The City has jurisdiction over 55 acres of Mile Square Park which is known as the Fountain Valley Recreation and Cultural Center.

Open Space provides for passive recreation uses which are compatible with the natural amenities of these lands. The Southern California Edison easement is one of the city's primary open space resources.



Community Facilities

Fountain Valley—General Plan Update

Figure 2-2



Special Study Areas

Special Study Areas are those areas which because of their nature require special design consideration in the development of the property; the designation of a Special Study Area serves as an overlay in addition to the General Plan land use designation. There are two such areas designated within the City of Fountain Valley: the Orange County Sanitation District and Water District properties, and the Fountain Valley Community Hospital and its adjacent vacant lands. These areas will each require site analysis, master planning, and the development of goals and policies to address the unique constraints, opportunities and features of each site and their related uses.

Specific Plan Area

California Planning and Zoning Law permits local governments to adopt specific plans:

"Section 65450. After the legislative body has adopted a general plan, the planning agency may, or if so directed by the legislative body, shall, prepare specific plans for the systematic implementation of the general plan for all or part of the area covered by the general plan."

The purpose of a specific plan is to provide detailed policies, standards and criteria for the development or redevelopment of the area it covers. Specific plans must be consistent with a community's general plan.

The City of Fountain Valley has one adopted specific plan covering the area and development of Southpark. As required by State law, the Southpark specific plan sets forth a detailed implementation program, setting the average floor area ratio at .43 and detailing the improvements necessary to serve this intensity of development without negative impact for the area or

its environs.

Goals and Policies

Goals and Policies which relate to the City's flood hazard potential, seismic safety, and hazardous waste are found in the Safety Element. Goals and Policies which relate to the City's open space and recreational amenities are found in the Conservation and the Parks, Open Space and Recreation Element. Other Goals and Policies which relate to the Land Use Element are found in the other Elements as well.

Goal

- 2.1 Maintain and enhance high quality development throughout the City.

Policies

- 2.1.1 Maintain and continue to enhance high quality mixed use development throughout the City.
- 2.1.2 Encourage variety, quality, consistency and innovation in land use practice.
- 2.1.3 Promote quality commercial and industrial development.
- 2.1.4 Ensure the transition of land use at the City's Maintenance Yard.

Goal

- 2.2 Prepare for annexation of City Sphere of Influence areas.

Policies

- 2.2.1 Encourage annexations which provide a direct fiscal benefit to the City.
- 2.2.2 Delay annexation until completion of all major public improvements, such as the Edinger Avenue Bridge.

Goal

- 2.3 Maximize benefits of future development of Special Study Areas: the Sanitation District and Orange County Water District properties and the environs of the Fountain Valley Community Hospital.

Policies

- 2.3.1 Ensure that development within Special Study Areas is compatible with adjacent development.
- 2.3.2 Ensure that development within Special Study Areas does not adversely impact City facilities and services.
- 2.3.3 Ensure that Special Study Areas reach their maximum development potential.

Goal

- 2.4 Orderly transition of land use on surplus school sites.

Policies

- 2.4.1 Monitor closing of school sites to ensure the adequacy of existing school facilities to service City residential areas.
- 2.4.2 Review school site development plans to ensure appropriate and compatible redevelopment.

2.4 COMMUNITY DESIGN

The intent of this section is to define the various requirements relating to the visual image of the community within the context of the Land Use Element. In addition, this section relates to the Housing, Conservation and Open Space and Recreation Elements. This section will set forth specific design criteria

including: guidelines related to the physical characteristics of each land use, as well as guidelines for various design relationships between types of land uses. While the greater part of this Element establishes the general type, location and amount of each land use, this section determines the more detailed physical or visual characteristics of each use.

Goal

- 2.5 Protect and enhance the City's existing positive visual attributes.

Policies

- 2.5.1 Protect and enhance existing well maintained neighborhood areas.
- 2.5.2 Protect and enhance existing parks and open space areas.

Goal

- 2.6 Improve architectural quality of development within Fountain Valley.

Policies

- 2.6.1 Promote residential, commercial and industrial development which achieves harmony without monotony in the built environment.
- 2.6.2 Encourage planning and design which is people oriented, sensitive to the needs of visitors and residents and functionally efficient for its purpose.

Goal

- 2.7 Well designed new residential development.

Policy

- 2.7.1 Encourage creative site planning in residential development offering open space for semi-private, passive and active recreational uses.

Goal

- 2.8 Well designed commercial and industrial development.

Policy

- 2.8.1 Work with commercial center owners and tenants to improve the appearance and character of these developments.

Goal

- 2.9 Attractive streetscapes throughout the City.

Policies

- 2.9.1 Encourage landscaping to enhance streetscapes.
- 2.9.2 Identify City boundaries.
- 2.9.3 Fencing treatment shall be designed to be aesthetically pleasing.
- 2.9.4 Buildings shall present fully finished facades on all sides visible from freeways or streets.

Goal

- 2.10 Safe and attractive pedestrian facilities.

Policies

- 2.10.1 Provide pedestrian corridors for convenience and recreation.
- 2.10.2 Enhance pedestrian facilities in non-residential areas.

- 2.10.3 Provide for transit user safety and convenience.

Goal

- 2.11 Safe and attractive parking facilities throughout the City.

Policies

- 2.11.1 Minimize the visual impacts of commercial and industrial surface parking.
- 2.11.2 Improve the appearance and convenience of rear parking lots in commercial districts.

2.5 ECONOMIC DEVELOPMENT

Retail Sales Trends and Mix

The Fountain Valley economy has reached a level of maturity in which most components function productively and present a positive image. Newly completed retail centers along Brookhurst and in the Southpark section of the Industrial Redevelopment project have already made tremendous strides toward reducing previous deficiencies in the City's economic development. Economic development actions in the City over the past two decades have primarily revolved around the fine tuning of land use areas and infilling of vacant sectors on the local map.

In fiscal terms, the Fountain Valley economy rests on a foundation of retail and service purchases by local residents and non-resident workers in the City. Historically, that translated into a strength for convenience goods businesses such as grocers, drug stores, restaurants, and service stations. Yet, the community's location within the shadow of nearby retail shopping malls and auto dealerships has posed major constraints for other business sectors and on market opportunities. The City must determine how it can recapture retail and service business leakages.

The review of retail performance indicators and commercial land use arrangements suggested that local market demands still were not fully addressed in the apparel, general merchandise, appliance and automotive sectors. Some restaurant categories are also absent from Fountain Valley.

Income Profile

The City of Fountain Valley has a far stronger single-family orientation in the community than in any other area city or in Orange County as a whole. Today, nearly four-fifths of all housing within Fountain Valley consists of single family homes, a level unequalled in the County's south central section. The City also has a larger household size (2.98) than countywide (2.72). In addition one out of every six households in Fountain Valley is occupied by just one individual versus a one-in-four single person proportion for Orange County.

This housing mix and family emphasis in the City has an important bearing on area retail market potential. Couples with growing children tend to allocate large shares of their income on such basic necessities as food, clothing and transportation. However, since most local neighborhoods are well established, they spend less on home improvements but regularly purchase capital goods associated with the dwelling unit, including furnishings and replacement appliances.

High housing values and the dominance of dual wage earner households produces a stronger local income pattern than the county averages. It is estimated that the average household median income in the City of Fountain Valley is \$52,925, as compared to \$40,588 of Orange County. There are an estimated 40.6% of Fountain Valley households with an annual income of over \$60,000, compared with an estimated 17.8% countywide.

These income contrasts point to the upper middle income character of Fountain Valley. Yet some socio-economic diversity is evident as nearly one-fourth of the city's households have earnings below \$30,000 per year. A majority of these consist of retirees with limited pensions, persons living alone, and young, single-parent families.

Jobs/Housing Balance

Fountain Valley has a strong jobs housing balance...146 jobs for every 100 housing units. As of 1987, approximately 25,400 jobs were located within the City. The major employment categories include retail trade, the number one employment category, followed by medical services, manufacturers, insurance services, and finally local government.

The amount and composition of future job growth in Fountain Valley will be driven by the pace of development in Southpark, any land use intensification in the industrial area south of Talbert and in office/health service job expansion. Regional forecasters have envisioned a job total of 31,900 for the City in the year 2010, a one-quarter increase above the present level. Regardless of the specific numbers in that employment expansion, Fountain Valley will maintain its role as a balanced community over the next two decades.

Goal

- 2.12 Enhance the City's economic base and business environment.

Policies

- 2.12.1 Assist in the preservation, improvement and intensification of existing commercial development.

2.12.2 Encourage and promote the entire City through a concentrated proactive outreach program.

2.12.3 Encourage the development of an Economic Marketing Plan.

Goal

2.13 Promote economic development through the use of the Redevelopment Agency's powers.

Policies

2.13.1 In cases where property acquisition is necessary for area improvement, the Redevelopment Agency shall proceed with amicable negotiations. Eminent domain proceedings shall be used only in extreme cases.

2.13.2 Coordinate redevelopment area public improvements with those in the City's capital improvement program.

2.13.3 The City shall use a portion of its redevelopment funds to sustain the staffing programs and outreach efforts of the Redevelopment Agency.

2.13.4 Emphasize development agreements which provide the Agency with equity participation opportunities to the greatest extent feasible.

2.6 QUALITY OF LIFE

The intent of this section is to define the objectives of a growth management strategy for Fountain Valley within the context of the Land Use Element, while Chapter 10, the Growth Management Element, is specifically structured to meet Orange County's measure M requirements, focused only on the issue of traffic congestion. This section also relates to the Circulation, Parks, Recreation and Open Space, and Air

Quality and Growth Management Elements.

The term "growth management" should be taken literally, it is the management of growth, not the reduction or elimination of growth. The purpose of growth management is to enhance the quality of life in Fountain Valley, and to minimize Fountain Valley's contribution to regional environmental problems such as air quality and traffic congestion. Quality of life relates to the City's ability to adequately support development through the provision of community facilities and services, and the provision and maintenance of infrastructure. Given that Fountain Valley is virtually built-out, the City's growth management efforts should primarily focus on the maintenance of facilities and service levels, with a secondary focus on managing growth in new development areas.

Those elements of quality of life which the City can most directly focus on are:

Community Facilities and Services

- o Police
- o Fire
- o Libraries
- o Schools
- o Social Services
- o Parks, Recreation and Open Space

Infrastructure

- o Streets
- o Water
- o Sewer
- o Storm Drainage
- o Maintenance

The City may also want to participate in inter-agency attempts to mitigate regional growth impacts such as air quality and traffic congestion. Regional efforts to deal with these problems are represented by the Traffic Improvement and Growth Management Program (Measure M) developed by the Orange

County Transportation Commission and the South Coast Air Basin Air Quality Management Plan.

Goal

- 2.14 Manage growth and development to insure the maintenance or improvement of the existing quality of life in Fountain Valley.

- 2.14.7 Provide for sufficient park, recreation, and community service opportunities throughout Fountain Valley to meet the needs of existing and future residents and workers.

Policies

- 2.14.1 Meet community needs in the City for public safety, law enforcement, and fire prevention by providing adequate resources for prevention, detection, investigation and response to calls for service.
- 2.14.2 Work with water services, sewer and flood control agencies to ensure the adequate maintenance of infrastructure facilities and provision for future maintenance and possible replacement or repair of such facilities.
- 2.14.3 Maintain streets, sidewalks, alleys, storm drains and sewers in a clean, safe and operational condition.
- 2.14.4 Achieve an integrated, balanced, safe and efficient transportation system that accommodates the demand for movement of people, goods and services.
- 2.14.5 Participate in interjurisdictional planning forums to reduce cumulative regional traffic impacts, improve air quality and manage growth.
- 2.14.6 Insure proper disposal of solid waste.

3.0 CIRCULATION



CHAPTER 3.0

CIRCULATION

3.1 INTRODUCTION

Government Code Section 65302(b) mandates local municipalities to include within their general plans a circulation element as follows:

"A circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element of the plan."

Transportation facilities have historically played a significant role in the development and shaping of cities. To help meet future demands and achieve balanced growth, the City has adopted specific goals and policies designed to improve overall circulation in Fountain Valley and to address circulation issues that concern the City at the present time. Several circulation system components and their associated attributes are addressed in this element. For highway transportation, the physical attributes involve a network of existing and future roadways defined according to designated roadway types, each with specific design standards. Other circulation components are defined by designated routing plans (e.g., trucking and public transportation), appropriate physical attributes (e.g., bicycle and equestrian trail network), or program development guidelines, (e.g., parking management plan and transportation demand management plan).

The General Plan Update MEIR Circulation Analysis prepared by Austin-Foust Associates, Inc., provides background information and acts as a supporting document for the circulation

element. Included as part of the General Plan circulation analysis was the development of the Fountain Valley Traffic Model (FVTM), a computerized citywide model designed to estimate future demands on the City's circulation system. Continued use of the traffic forecasting model in future circulation system impact analyses, and as the technical basis in the establishment of a citywide transportation improvement fee program is specified within the goals and policies established to implement the highway circulation plan.

Related Plans and Programs

Several transportation plans have been prepared by the County of Orange, focusing on the development of a regional transportation system to handle the anticipated traffic loads expected from future development. Plans and programs related to the circulation element include the following:

- o County of Orange, Master Plan of Arterial Highways
- o County of Orange, Congestion Management Plan
- o County of Orange, Growth Management Plan
- o County of Orange, Master Plan of Countywide Bikeways
- o South Coast Air Basin, Air Quality Management Plan

3.2 HIGHWAY CIRCULATION PLAN

An adequate system of streets and highways is vital to maintaining orderly growth within the City. This section of the circulation element defines a highway circulation plan that provides for safe and convenient movement of people and goods throughout the City at the development intensity anticipated in the land use element. A roadway

classification system is defined as well as performance standards for roadways and intersections within the City.

Roadway Facility Designations

The future roadway system in Fountain Valley is defined using a classification system which describes a hierarchy of facility types. The categories of roadways included in this classification system differentiate the size, function and capacity for each type of roadway. There are five basic categories in the hierarchy, ranging from "freeway" with the highest capacity to "commuter roadway" with the lowest capacity. Each is summarized below:

Freeway - A six- to ten-lane divided roadway with full access control, grade separations at all intersections and a typical right-of-way width in excess of 150 feet, designed and maintained by the State Department of Transportation.

Major Arterial - A six-lane divided roadway with no on-street parking, with a typical right-of-way width of 120 feet and a curb-to-curb pavement width of 104 feet.

Primary Arterial - A four-lane divided roadway, with a typical right-of-way width of 100 feet and curb-to-curb pavement width of 84 feet.

Secondary Arterial - A four-lane undivided roadway, with a typical right-of-way width of 80 feet and a curb-to-curb pavement width of 64 feet.

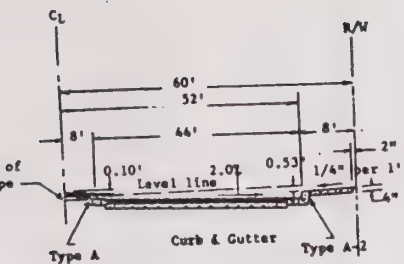
Commuter Roadway - A two-lane undivided roadway with a typical right-of-way width of 60 feet and a pavement width of 40 feet. This

category of roadway is designed for access to individual parcels in the City.

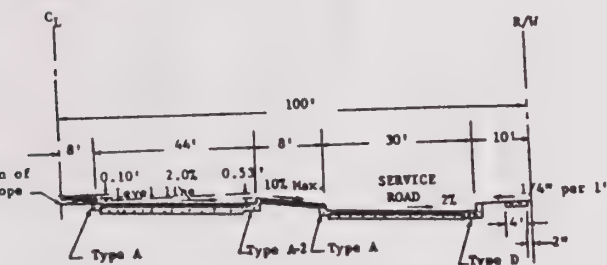
Any of the three arterial categories can have an augmented designation. The intent is to provide a means of increasing the capacity of a given type of arterial by maximizing the utilization of the basic arterial roadway width. Such augmentation can range from adding lanes at intersections or along midblock roadway segments, to adding or expanding a median and/or other midblock measures to improve traffic flow and reduce side friction.

Schematic cross sections of each category of arterial roadway are provided in Figure 3-1. Variation of right-of-way width and specific road improvements will occur within each of the roadway classifications based on existing conditions and other factors. In particular, the median width in six-lane and four-lane roadways will vary according to the area being served and the available right-of-way. Also, any of the arterial classifications listed above may deviate from the standards where physical constraints exist or where preservation of community character dictates special treatment.

The desirable goal for every classified street section is that it carry the designed volume of traffic at the desired level of service. Within this requirement, descriptions of width and facilities are offered as non-exclusive alternatives; variation in design is expected, depending on different community design characteristics. Different optional facilities are also expected (on-street parking, sidewalks versus pathways, bicycle lanes or paths, extra parkway or median landscape treatment, etc.).



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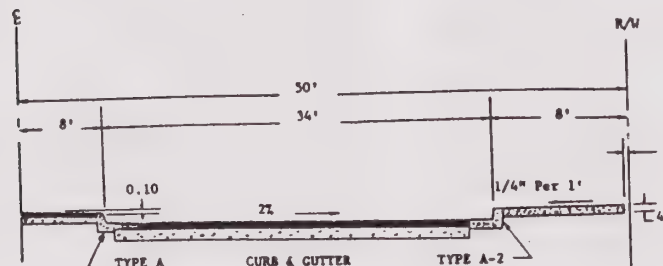
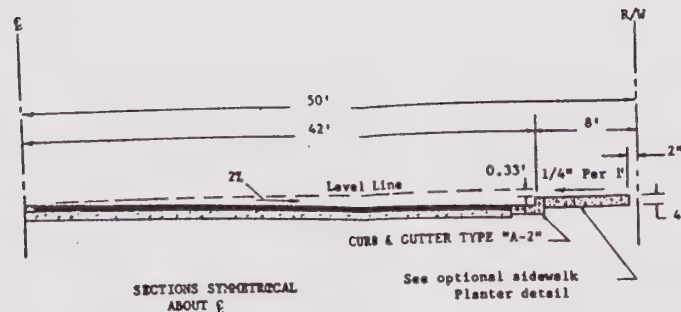


SIDEWALK SHALL BE 7' - 4" WIDE WITH "BACK-UP" LOTS

Thickness of improvement to be determined by soil test, with minimums of:

Major Highway : 3" AC over 8" AB
Service Road : 2" AC over 4" AB
Islands : 2" AC over sterilized soil
Liquid Asphalt MC-70 Prime Coat over AB
Asphalt Emulsion SS-1h Seal Coat over AC

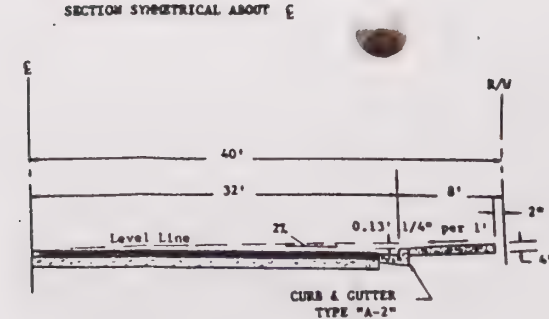
MAJOR ARTERIAL



ALTERNATE SECTION

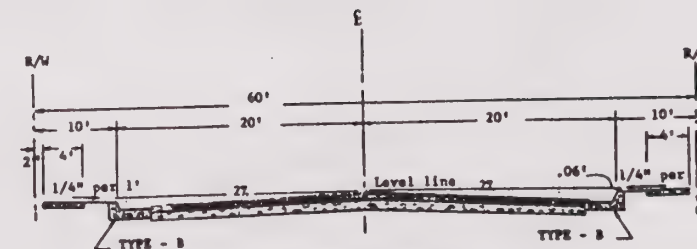
SIDEWALK SHALL BE 7' - 4" WIDE WITH "BACK-UP" LOTS
Thickness of improvement to be determined by soil test with minimums of:
Major Highway : 3" AC over 8" AB
Service Road : 2" AC over 4" AB
Islands : 2" AC over sterilized soil
Liquid asphalt MC-70 Prime Coat over AB
Asphalt emulsion SS-1h Seal Coat over AC

PRIMARY ARTERIAL



SIDEWALK SHALL BE 7' - 4" WIDE WITH "BACK-UP" LOTS
Thickness of improvement to be determined by soil test with a minimum of 3" AC over 8" AB.
Liquid asphalt MC-70 prime coat over AB.
Asphaltic emulsion SS-1h seal coat over AC.

SECONDARY ARTERIAL



TYPICAL SECTION
COMMUTER ROADWAY

Right-of-Way Standards

Fountain Valley—General Plan Update

Figure 3-1



7/31/92

Performance Criteria

Evaluating the ability of the circulation system to handle existing and future projected traffic loads requires establishing suitable performance criteria or level of service (LOS) standards. The LOS is a measure of traffic operating conditions as outlined in Table 3-1, and is based on prevailing traffic volumes in relation to roadway capacity.

Performance criteria have a policy component which establishes a desired LOS and a technical component which specifies how traffic forecast data can be used to measure the achievement of the criteria. The performance criteria used for evaluating volumes and capacities on the City's arterial highway system are summarized in Table 3-2. Level of service standards are included for peak hour intersection volumes and for midblock average daily traffic (ADT) volumes.

ADT capacities represent the general level of daily traffic that each roadway type can carry and should be used as a general design guideline only. Level of service for the circulation system is more precisely determined by examining peak hour intersection volumes and, therefore, the circulation element uses peak hour volumes as a basis for determining appropriate capacity needs.

The City of Fountain Valley has established LOS "D" as the lowest acceptable level of service for peak hour intersection volumes. This performance standard was used as the basis in defining the highway circulation plan contained in this element, and would be applied consistently for evaluating General Plan land use and circulation system changes.

Existing Roadway Network

The existing roadway system in the City is illustrated on Figure 3-2. As shown

on this figure, the arterial street system is primarily a grid system with spacings of one-half mile. The grid system is disrupted by physical entities such as Mile Square Park, the Santa Ana River, and the San Diego Freeway (I-405) which traverses southeast to northwest through the City.

The I-405 Freeway provides the primary source of regional access to the City with interchanges at Magnolia Street/Warner Avenue, Brookhurst Street and Euclid Avenue/Ellis Avenue. The Freeway operates with five travel lanes in each direction south of the Brookhurst Street interchange and four lanes in each direction north of the interchange. An additional high-occupancy vehicle (HOV) lane is currently constructed in each direction through the City.

On the arterial system, primary east/west travel in the City is provided by Warner Avenue, which operates with three lanes in each direction except for the four lane crossing (two lanes in each direction) of the I-405 Freeway, and by Edinger, Slater and Talbert Avenues, each of which operate with two lanes in each direction with the exception of the Talbert Avenue segment between Euclid Street and the Santa Ana River, which operates with five travel lanes (three lanes westbound and two lanes eastbound). It should be noted that each of these east/west arterials contains a bridge crossing the Santa Ana River. Secondary east/west access is provided by Ellis, Garfield and Heil Avenues; it should be noted however, that Garfield Avenue does not continue over the Santa Ana River and that the terminus of Heil Avenue is at Mile Square Park. Each of these facilities operates with two travel lanes in each direction with the exception of the segment of Heil

TABLE 3-1

STANDARDS FOR ROADWAY LEVELS OF SERVICE*

LEVEL OF SERVICE	TRAFFIC CONDITIONS
A	Primarily free flow operations at average travel speeds usually about 90 percent of free flow speed. Vehicles can maneuver unimpeded within the traffic stream. Delay at signalized intersections is minimal.
B	Reasonably unimpeded operations at average travel speeds usually about 70 percent of free flow speed. Ability to maneuver is only slightly restricted and stopped delays are not bothersome. Drivers are not subjected to appreciable tension.
C	Represents stable operations, however, ability to maneuver and change lanes in midblock locations may be more restricted. Longer queues and/or adverse signal coordination may contribute to lower average travel speeds of about 50 percent of free-flow speed. Drivers will experience some appreciable tension.
D	Borders on a range in which small increases in flow may cause substantial increases in approach delay, and hence, decreases in arterial speed. Causes range from adverse signal progression, inappropriate signal timing, high volumes, or any combination. For planning purposes, this Level of Service is the lowest that is considered acceptable. Average travel speeds are about 40 percent of free-flow speed.
E	Characterized by significant approach delays and average travel speeds of one-third of free-flow speed or lower, caused by adverse progression, high signal density, extensive queuing at critical intersections, inappropriate signal timing, or some combination.
F	Characterized by arterial flow at extremely low speeds below one-third to one-quarter of free flow speed. Congestion is likely at critical signalized intersections, resulting in high approach delays. Adverse progression is a contributor to this condition.

*From arterial highway section of 1985 Capacity Manual

TABLE 3-2

CIRCULATION SYSTEM PERFORMANCE CRITERIA

The following are the performance criteria used for comparing traffic volumes and capacities on the City's arterial highway system:

AVERAGE DAILY TRAFFIC (ADT) LINK VOLUMES

Level of Service D - Major, Primary and Secondary Arterials and Commuter Roadways.

Table A below shows the ADT volumes corresponding to this level of service.

PEAK HOUR INTERSECTION VOLUMES

Level of Service D - All roadways.

Table B below shows how this level of service is specified.

ADT LEVEL OF SERVICE VOLUME

CLASSIFICATION	MAXIMUM VOLUME		
	LOS C	LOS D	LOS E
Major Arterial (6 lanes divided)	45,000	50,600	56,300
Primary Arterial (4 lanes divided)	30,000	33,800	37,500
Secondary Arterial (4 lanes undivided)	20,000	22,500	25,000
Commuter Roadway (2 lanes)	10,000	11,300	12,500

PEAK HOUR LEVEL OF SERVICE

Peak hour intersection level of service (LOS) to be based on intersection capacity utilization (ICU) values calculated as follows:

Saturation flow rate: 1700 Vehicles Per Hour (VPH)
 Clearance interval: .05 of an ICU value

Level of service values are as follows:

LEVEL OF SERVICE	MAXIMUM ICU VALUE
LOS A	.60
LOS B	.70
LOS C	.80
LOS D	.90
LOS E	1.00



Existing Roadway System

Fountain Valley—General Plan Update

Figure 3-2



Avenue between Euclid Street and one-quarter mile west of Newhope Street which operates with one lane in each direction.

Primary north/south arterial travel is provided by Brookhurst Street and Harbor Boulevard, both of which operate with three lanes in each direction, and by Magnolia and Euclid Streets, both of which operate with two lanes in each direction. Secondary north/south travel is provided by Newland, Bushard, Newhope and Ward Streets, the latter of which is discontinuous at Mile Square Park. Each of these facilities operates with two lanes in each direction with the exception of the two lane Ward Street crossing (one lane in each direction) of the I-405 Freeway.

Existing Traffic Volumes and Levels of Service

As discussed in the General Plan EIR Traffic Study, the heaviest daily volumes on the arterial system occur on Brookhurst Street and on Harbor Boulevard. Moderately heavy traffic volumes are also noted on Warner Avenue, Magnolia and Euclid Streets. In general, residents of Fountain Valley acknowledge that the City has maintained good ingress and egress through the City when traveling in the north/south direction, however, access is limited when traveling in the east/west direction, particularly along Ellis and Garfield Avenues.

Existing peak hour ramp volumes at each of the I-405 interchanges in the City currently operate at LOS D or better except for the southbound on-ramp at Euclid Street in the AM peak hour and the northbound off-ramp at Euclid Street in the PM peak hour. It should be noted that some locations experience lower levels of service due to close intersection proximity, unsignalized intersections and/or inadequate turn pockets, or weaving length availability. Also, peak period

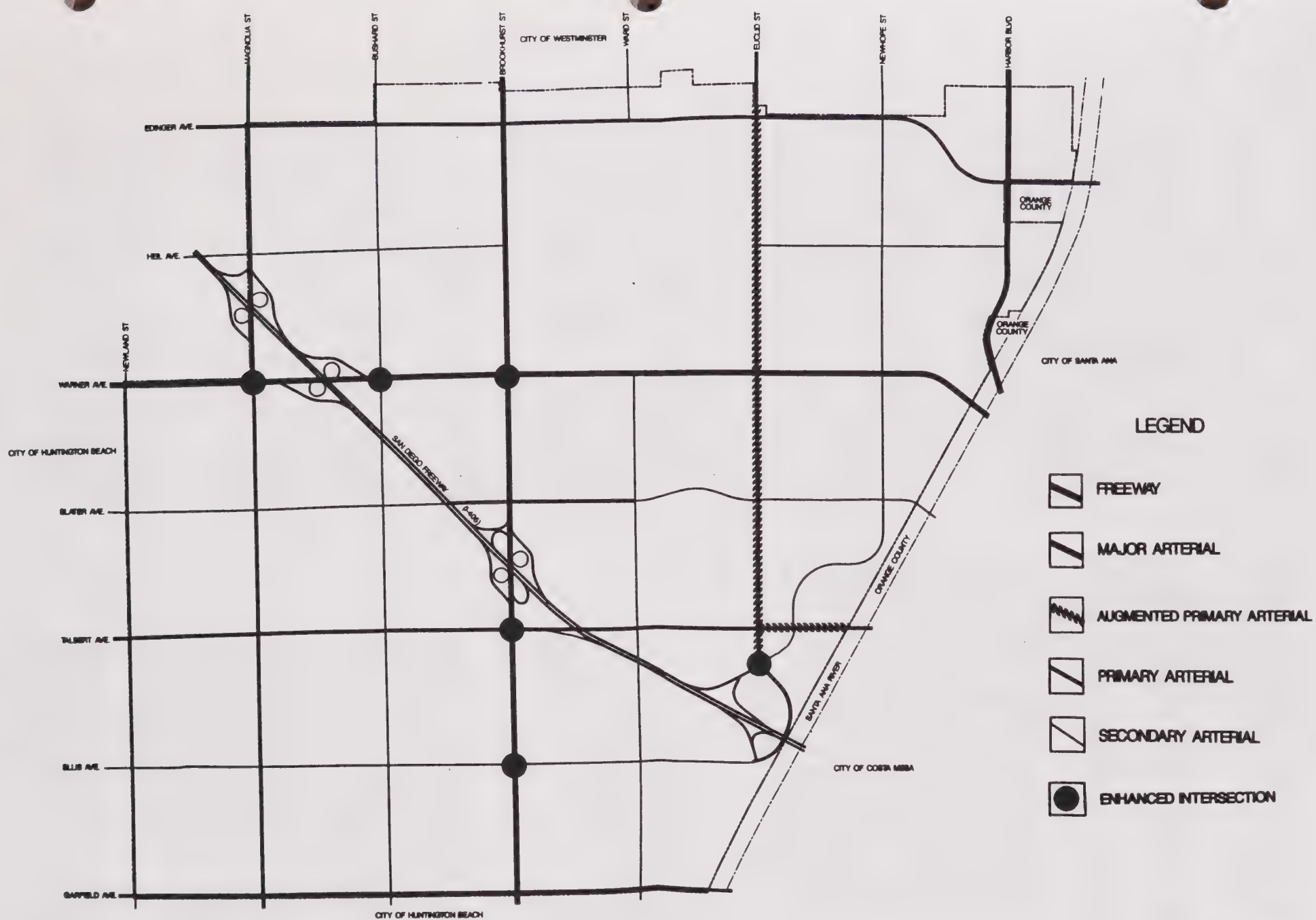
ramp volumes are effectively "metered" or limited by existing freeway congestion which could cause freeway destined vehicles to queue back onto the City's arterial system. It should be noted that area residents have expressed concern regarding this specific issue of traffic backing up onto City arterials near the I-405 Freeway.

On the City's arterial street system, three intersections operate worse than LOS D in the PM peak hour, including: Magnolia and Warner, Euclid and the I-405 Freeway northbound ramps, and the I-405 Freeway southbound ramps at Euclid/ Ellis. The City of Fountain Valley cannot, by itself, address any of these three congestion problems: the Magnolia and Warner intersection is shared with the City of Huntington Beach, so that coordination with that City will be necessary. The other two problem areas are a function of the State highway system and do not fall within the sole purview of the City. In addition, area residents perceive that access to arterial streets from neighborhood tracts is impeded during the peak hours due to intersection deficiencies.

Proposed Circulation Plan

The highway network designated in the proposed circulation plan is shown in Figure 3-3. Existing bridges planned for improvement include widening of the Warner Avenue/I-405 overcrossing and the Warner Avenue bridge over the Santa Ana River from four to six lanes (three lanes in each direction), widening the Ward Street/I-405 overcrossing from two to four lanes and the construction of a four lane (two lanes in each direction) bridge at Garfield Avenue over the Santa Ana River connecting with Gisler Avenue in the City of Costa Mesa.

Other improvements to the arterial system include extending Newhope Street from Talbert Avenue to Euclid Street, widening Euclid Street to six



Circulation Plan Fountain Valley—General Plan Update

Figure 3-3

lanes (three lanes in each direction) from the northern City limits to Newhope Street; widening Talbert Avenue between Euclid Street and the Santa Ana River to six lanes (three lanes in each direction; currently westbound is three lanes and eastbound is two lanes); and widening Heil Avenue east of Euclid Street from two lanes to four lanes (two lanes in each direction).

Intersections which are projected to require more lanes in the future than the typical arterial cross-section are indicated as "enhanced intersections" in the proposed circulation plan. Provision of additional lanes may require additional right-of-way beyond the standard provided within the typical arterial cross-sections. Alternatively, these additional lanes could be accommodated by removing on-street bike lanes or reducing parkway width. Detailed engineering studies should be carried out for these locations in order to identify the most effective and feasible types of improvements. The General Plan MEIR Traffic Study provides guidelines for the type of lane configurations that could be appropriate at each location.

A notable feature included in the County of Orange Master Plan of Arterial Highways (MPAH) is the potential extension of the SR-57 Freeway to the I-405 Freeway along the Santa Ana River and possibly further south to Pacific Coast Highway (PCH). Caltrans is currently examining the feasibility of various design aspects of this facility, such as interchange locations and tollway and/or transitway provision.

Trucking

Designated truck routes in the City of Fountain Valley are illustrated in Figure 3-4. As shown, a complete network of trucking routes is currently provided. The plan will be evaluated annually and

modifications made should any constraints or opportunities be identified.

Special Events and Impacts on the Local Circulation System

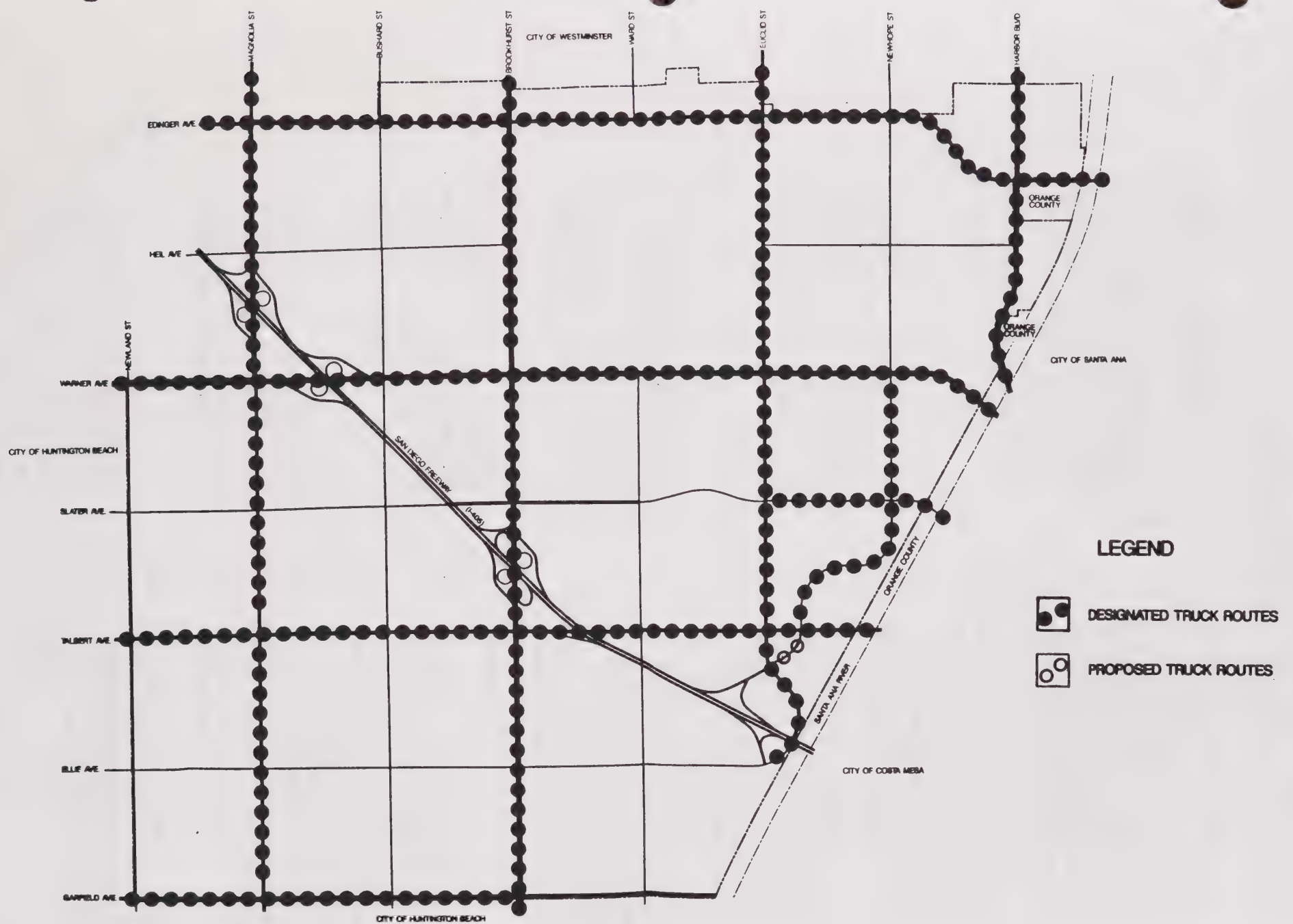
Area Residents are concerned with the planning of special events within the community, ie., the fiesta, and the impacts that these events have on the traffic flow and congestion which occurs in the City when those events occur. Special consideration should be given to the planning of these events, neighborhood should be notified and alternative routes recommended, any street closures should be advertised well in advance and removal of any on-street parking also advertised in advance.

Goal

- 3.1 Provide a transportation system that supports the land use element of the General Plan and facilitates the safe and efficient movement of people and goods throughout the City of Fountain Valley.

Policies

- 3.1.1 Promote the orderly completion of the planned circulation system through the improvement of substandard roadway segments and intersections, and the construction of missing roadway links and related facilities.
- 3.1.2 Participate with other agencies in defining and implementing a Congestion Management Program for Fountain Valley which maintains compliance with Orange County's Congestion Management Plan (CMP).
- 3.1.3 Maintain circulation system standards for roadway and intersection classifications, right-of-way width, pavement width, design speed, capacity, and



Designated Truck Routes Fountain Valley—General Plan Update

Figure 3-4

associated features such as medians and bicycle lanes.

- 3.1.4 Provide advance notification to area residents of scheduled special events including identification of any removal of on-street parking or planned street closures, and recommendations for alternative travel routes.

Goal

- 3.2 Provide a circulation system which supports existing, approved and planned land uses throughout the City while maintaining a desired level of service on all streets and at all intersections.

Policies

- 3.2.1 Maintain a citywide level of service (LOS) not exceeding LOS "D" for intersections during the peak hours, unless the City determines an exception is warranted on an interim basis.
- 3.2.2 Identify and improve roadways and intersections that are approaching or have reached unacceptable levels of service through the execution of a citywide annual traffic count monitoring program.

Goal

- 3.3 Ensure that the location, intensity and timing of development is consistent with the provision of adequate transportation infrastructure and standards.

Policies

- 3.3.1 Incorporate phasing policies and requirements in development plans and in future General Plan Updates to achieve timely provision of infrastructure, particularly transportation

facilities, to serve development.

- 3.3.2 Pursuant to Measure M, develop a Circulation Improvement Financing Program which enables circulation improvements to be funded by new development in a manner that maintains the specified performance standards.

- 3.3.3 Require new development projects to mitigate off-site traffic impacts to the maximum extent feasible in order to maintain the City's preferred level of service standard.

- 3.3.4 Utilize the citywide traffic forecasting model to determine immediate and cumulative impacts on the City's transportation system due to proposed developments and to serve as the traffic share technical basis in establishing a Circulation Improvement Financing Program. Monitor and periodically update the traffic model database, and carry out traffic model recalibration procedures as warranted by land use and circulation database revisions.

- 3.3.5 Require new development to install traffic signals at intersections on arterials which, based on individual study, are shown to satisfy the minimum traffic signal warrants. Additional signals must improve safety and the efficient movement of vehicles with no deterioration of the existing levels of service at the intersections.

- 3.3.6 Require that driveway access points onto arterial roadways be limited in number and location in order to ensure the smooth and safe flow of vehicles and bicycles.

Goal

- 3.4 Support development of regional transportation facilities which ensure the safe and efficient movement of people and goods from within the City to areas outside its boundaries, and which accommodate the regional travel demands of developing areas outside the City.

Policies

- 3.4.1 Support the completion of the Orange County Master Plan of Arterial Highways.
- 3.4.2 Maintain a proactive and assertive role with adjacent cities and regional, state, and federal agencies dealing with regional transportation issues affecting the City.
- 3.4.3 Work with adjacent cities to ensure that the traffic impacts of development projects in these cities do not adversely impact the City of Fountain Valley.
- 3.4.4 Support the addition of capacity and noise mitigation improvements such as high-occupancy vehicle lanes, general purpose lanes, auxiliary lanes and noise barriers to the San Diego Freeway (I-405).
- 3.4.5 Identify safe and expedient travel routes for emergency evacuation of the City.

Goal

- 3.5 Develop and encourage a transportation demand management (TDM) system to assist in mitigating traffic impacts and in maintaining a desired level of service on the circulation system. The TDM

system will be in accordance with the TDM ordinance adopted by the City of Fountain Valley pursuant to the requirements of the County's Measure M and the State's Congestion Management Plan Act.

Policies

- 3.5.1 Pursue transportation management strategies that can maximize vehicle occupancy and minimize average trip length.
- 3.5.2 Require that proposals for major new non-residential developments include submission of a TDM plan to the City.
- 3.5.3 Encourage non-residential developments to provide employee incentives to utilize alternatives to the conventional automobile (i.e., carpools, vanpools, buses, bicycle and walking).
- 3.5.4 Encourage the implementation of employer TDM requirements included in the Southern California Air Quality Management District's (AQMD) Regulation 15 of the Air Quality Management Plan.
- 3.5.5 Encourage industry to use flex-time, staggered working hours and other means to lessen commuter traffic.
- 3.5.6 Encourage the use of multiple occupancy vehicle programs for shopping and other uses to reduce midday traffic.
- 3.5.7 Support national, state and regional legislation directed at encouraging the use of carpools and vanpools.
- 3.5.8 Promote ridesharing through publicity and provision of information to the public.

Goal

- 3.6 Designate primary truck routes that sustain an effective transport of commodities while minimizing the negative impacts on local circulation and on noise-sensitive land uses.

Policy

- 3.6.1 Evaluate adequacy of designated truck routes on an annual basis and make modifications as required.

3.3 PUBLIC TRANSPORTATION PLAN

Busway System

An existing network of public bus routes providing access to employment centers, shopping and recreational areas within the City is illustrated in Figure 3-5. Service is provided by the Orange County Transportation Authority (OCTA). East/west service through the City is provided by Route 70 along Edinger Avenue, Route 72 along Warner Avenue, and Route 74 along Talbert Avenue. North/south service through the City is provided by Route 33 along Magnolia Street, Route 35 along Brookhurst Street, and Route 43 along Harbor Boulevard. Route 141 provides alternative northern access along Newhope Street. Route 37 provides access through the central portion of the City from Garfield Avenue west of the city limits to Euclid Street north of the city limits, and Route 78 provides access along the I-405 corridor from north of the City to Sunflower Avenue east of the Santa Ana River in the City of Costa Mesa.

As indicated, the City of Fountain Valley currently has a comprehensive network of public bus routes. However, existing and potential transit routes are reviewed each year by OCTA for

ridership demand and operational feasibility if implemented.

Rail Service

Passenger rail service for residents and employees of Fountain Valley is provided from an Amtrak depot to the northeast in Santa Ana, which is the main train station for all of Orange County. An analysis of the regional rail system between Los Angeles and San Diego (LOSSAN), currently being undertaken by Caltrans, will determine the future utilization of regional rail service at this facility.

The Orange County Transportation Authority is also evaluating the regional rail system through its Countywide Rail Study (CRS). This study is assessing congested traffic corridors and identifying rail and bus enhancements to the existing transportation system. While additional rail lines and improved service are being evaluated as part of this study, service directly to Fountain Valley is not currently proposed.

Air Travel

Air travel for City residents is available from several airports in the region. John Wayne Airport in Orange County is approximately 5 miles to the south by surface roadway, and as the closest of the regional airports, would be the major facility for air travel. A second regional airport located approximately 10 miles to the north in Long Beach, also provides service for the Fountain Valley community.

Goal

- 3.7 Maintain participation in a public transit system that provides mobility to all City residents and employees as a logical alternative to automobile travel.



OCTA Transit Routes Fountain Valley—General Plan Update

Figure 3-5



Policies

- 3.7.1 Coordinate with the Orange County Transportation Authority (OCTA) to increase transit services and expand services through transit facility improvements.
- 3.7.2 Promote new development that is designed in a manner which facilitates provision or expansion of transit service, provides on-site commercial/recreational facilities to discourage midday travel, and provides on-site circulation.
- 3.7.3 Require proposed developments to include transit facilities, such as park-and-ride sites, bus benches, shelters, pads or turn-outs, where appropriate, in their improvement plans or as needed in proximity to their development.
- 3.7.4 Encourage developers to work with agencies providing transit service with the objective of maximizing the potential for transit use.
- 3.7.5 Encourage employers to reduce employee vehicular trips by offering incentives for employees to use public transportation.
- 3.7.6 Encourage OCTA to study the feasibility of construction of a Transportation Center which would provide services for rail and/or bus utilization, and construction of park-and-ride facilities for interface with regional freeway and HOV facilities.
- 3.7.7 Encourage the provision of safe, attractive and clearly identifiable transit stops throughout the community.

- 3.7.8 Develop design standards that promote access to transit facilities.

- 3.7.9 Encourage accessible and efficient public transit for persons with impaired mobility.

Goal

- 3.8 Increase commuter rail opportunities for both residents and employees within the City.

Policy

- 3.8.1 Coordinate with Amtrak regarding a linkage to commuter rail service for residents and employees, such as shuttle connections to employment centers and residential areas.

3.4 TRAIL SYSTEMS

The proposed network of bicycle routes in the City of Fountain Valley is illustrated in Figure 3-6. The biking network connects with trails and paths of adjacent communities and consists of three categories of bikeways. Each is described below:

Class I: Provides a completely separated right-of-way designated for the exclusive use of bicycles and pedestrians with crossflows by motorists minimized.

Class II: Provides a restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with



Trails Plan Fountain Valley—General Plan Update

Figure 3-6



vehicle parking and crossflows by pedestrians and motorists permitted.

Class III: Provides for use of shared facilities. These bikeways share the street with motor vehicles or share the sidewalk with pedestrians. In both of these conditions, bicycle use is a secondary function of the pavement.

Class I off-road bike paths are currently constructed along the Santa Ana River Channel and in Mile Square Park. The remainder of the nearly complete bikeway system within the City consists of Class II bike lanes and Class III bike routes. Additional Class II facilities which are shown on the Orange County Master Plan of Bikeways are planned for Newhope Street between Slater Avenue and Warner Avenue, Edinger Avenue between Brookhurst Street and the western city limits, Bushard Street between Edinger Avenue and the northern city limits, and Garfield Avenue between Ward Street and the eastern city limits (Santa Ana River bike path).

The County of Orange currently maintains an equestrian trail along the Santa Ana River east of the city. No trails are currently located or proposed within the city.

Goal

- 3.9 Provide a citywide system of safe, efficient and attractive bicycle and pedestrian routes for commuter, school and recreational use.

Policies

- 3.9.1 Develop citywide standards for

construction and maintenance of bikeways and pedestrian walkways.

- 3.9.2 Develop and adopt a Bikeway Plan that is consistent with the County of Orange Master Plan of Countywide Bikeways, and other adopted master plans, to assure that local bicycle routes will be compatible with routes of neighboring jurisdictions.

- 3.9.3 Maintain existing pedestrian facilities and require new development to provide pedestrian walkways between developments, schools and public facilities.

- 3.9.4 Where appropriate, require proposed developments adjacent to proposed bikeway routes to include bicycle paths or lanes in their street improvement plans and to construct the bicycle paths or lanes as a condition of project approval.

- 3.9.5 Construct safe, separate, and convenient paths for bicycles and pedestrians so as to encourage these alternate forms of transportation.

- 3.9.6 Require plans for bicycle and pedestrian facilities to give priority to providing continuity and closing gaps in the bikeway and sidewalk network.

- 3.9.7 Encourage the provision of showers, changing rooms and bicycle storage at all new and existing non-residential developments and public places.

- 3.9.8 Develop programs that encourage the safe utilization of easements and/or rights-of-way along flood control channels, public utilities, railroads and streets wherever possible for the use of bicycles and/or pedestrians.

- 3.9.9 Ensure accessibility of pedestrian facilities to the elderly and mobility impaired.

3.5 PARKING

The City currently allows on-street parking on some of their arterial streets. There is some sentiment by area residents to utilize certain shopping center lots for commuter park and ride lots.

Goal

- 3.10 Provide sufficient, well-designed and convenient on-street parking facilities throughout the City.

Policies

- 3.10.1 Develop and implement a Parking Management Plan or other program that identifies parking requirements.
- 3.10.2 Consolidate parking, where appropriate, to eliminate the number of ingress and egress points onto arterials.
- 3.10.3 Consider the use of public/private joint-ventures to provide funding sources for parking facilities.

4.0 PARKS, RECREATION AND OPEN SPACE





Parks, Recreation and Open Space Fountain Valley—General Plan Update

Figure 4-1

CHAPTER 4.0

PARKS, RECREATION AND OPEN SPACE

4.1 INTRODUCTION

The State of California Government Code requires the incorporation of both a parks and recreation, and an open space element in all jurisdictional general plans.

California laws governing planning and development place more emphasis on the open space element than on any other component of general plans, with the exception of housing. Government Code Title 7 Planning and Land Use, Chapter 3 Local Planning, Article 5 Authority for and Scope of General Plans, Section 65302(e) requires "an open space element as provided in Article 10.5 (Open Space Lands) commencing with Section 65560."

The open space resources of California municipalities are then defined in Section 65560 as:

- (a) "Local open space plan" is the open space element of a county or city general plan adopted by the board or council...
- (b) "Open space land" is any parcel or area of land or water which is essentially unimproved and devoted to an open space use as defined in this section, and which is designated on a local, regional or state open-space plan as any of the following:
 1. Open space for the preservation of natural resources including, but not limited to, areas required for the preservation of plant and animal life, including habitat for fish and wildlife species; areas required for ecologic and other scientific study purposes; rivers,

streams, bays and estuaries; and ... banks of rivers and streams, and watershed lands.

2. Open space used for the managed production of resources, including but not limited to ... agricultural lands and areas of economic importance for the production of food and fiber; areas required for recharge of ground water basins; ... and areas containing major mineral deposits, including those in short supply.
3. Open space for outdoor recreation, including but not limited to areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes, including access to ... rivers and streams; and areas which serve as links between major recreation and open space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors.
4. Open space for public health and safety, including, but not limited to, areas which require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality.

In addition, the State of California General Plan Guidelines recommends that, when planning for "Open Space for Outdoor Recreation" (Number 3, above) the following be included;

- * Inventory and analysis of areas of outstanding scenic beauty.

- * Assessment of the demand for public and private parks and recreational facilities and an inventory of areas particularly suited to parks and recreational purposes.

Description of the type, location and size of existing public (federal, state, regional and local) and private parks and recreational facilities,

Review of federal, state, regional and local plans and proposal for the acquisition and improvement of public parks,

Assessment of present and future demands for parks and recreational facilities.

- * Inventory of recreational trails and areas and an assessment of the demand for them.
- * Inventory of trails proposed by and developed under the California Recreational Trails Plan of 1978.

In response to these directives, this Parks, Recreation and Open Space element identifies Fountain Valley's existing recreation facilities, its anticipated recreational needs, the potential location of future facilities, and considerations affecting the provision of new parks and recreational facilities.

4.2 EXISTING PARKLANDS

Parks and Open Space are those areas designated for recreational purposes, both active and passive, and/or areas which will preserve or enhance the natural environment. Parks in the City of Fountain Valley consist of Neighborhood, Community and Regional Parks, as shown on Figure 4-1.

Neighborhood Parks

Neighborhood Parks are those which are designed to serve primarily the neighborhoods in which they are located. These parks generally consist of moderate size grass areas with playground equipment and picnic tables. A Neighborhood Park can serve between 2,500 to 5,000 people. Neighborhood Parks are generally located adjacent to the elementary schools and are sometimes developed in conjunction with a school playground.

Community Parks

Community Parks are typically larger and serve a larger area, located to serve several neighborhoods and up to 20,000 people. Community Parks consist of major open space, playground equipment and picnic facilities. Community Parks include: Courreges Park, Harper Park, Fulton Park, Westmont Park North, and Heritage Park.

Regional Parks

The City's Regional Park, Mile Square Park serves as a focal point and provides recreation and open space opportunities to the entire City. In addition, Mile Square Park attracts regional recreation seekers.

Mile Square Park is located at the north end of Fountain Valley with the main entrance off Euclid between Edinger and Warner, with a total of 640 acres of public land dedicated for recreational use. Mile Square Park, a Regional Park as designated on the County's Regional Park Master Plan, is made up of County park land and City park land. The City has jurisdiction over 55 acres which is known as the Fountain Valley Recreation and Cultural Center. This area along with the County area has many recreational amenities including a

recreational center with banquet rooms, gymnasium, eighteen softball diamonds, four soccer fields, an archery range, cricket field, area for model plane flying and land sailing, four volleyball courts, three handball courts, two indoor racquetball courts, six outdoor basketball courts, a shuffleboard and horseshoe area, twelve lighted tennis courts, picnic areas and restrooms. The park is also home to two golf courses. The east side of the park is reserved for passive uses, such as family gatherings and picnics.

Originally the entire site was under the control of the federal government; under the Nixon administration a number of sites throughout the United States, including the Mile Square Park site, were dedicated to a variety of local agencies with the stipulation that these sites be used solely for recreational purposes. In 1972, the City of Fountain Valley entered into an agreement with the County to lease the 55 acres which currently house the City's Recreation and Cultural Center. The City has a 25 year lease with the County with an option to extend that lease by another 25 years for a rate of \$1.00 per year; the original 25 year lease began in 1972, and therefore can be extended through the year 2022 for the same rate. The federal government has transferred the ownership of the 167 acre triangular aviation field to the County, once again with the stipulation that this land be used solely for recreational purposes.

In 1992, the County initiated a land exchange with the federal government and now retains ownership of the former airfield site to be used for recreational purposes.

Parkland Requirements

Most cities in California have a goal to achieve a ratio of three (3) to five (5) acres of parkland per thousand residents.

SB 1785, passed in 1982, allows local governments to require the dedication of between 3 and 5 acres of park area per 1,000 residents in a subdivision, as follows. If the jurisdiction has an existing parks to population ratio of 5 acres to 1,000 population or greater, then that local government can require a dedication of up to 5 acres of parkland per 1,000 population for new development, or the equivalent in-lieu fees. If the ratio within a jurisdiction is between 3 and 5 acres of parkland, then the local government can require a dedication which coincides with the jurisdictions existing ratio. In those instances where the jurisdiction has less than 3 acres per 1,000 population, the local government may only require the dedication of parkland at a ratio up to 3 acres per 1,000 population.

Currently, based on a population of 53,691 people (taken from the 1990 U.S. Census) and parks totaling 708.75 acres, which includes the golf course operated under private enterprise at Mile Square Park and the federal land within the Park that will be dedicated to the County in 1991, the park acreage per thousand persons ratio is 13.2 acres per 1,000 residents. This total park acreage includes Mile Square Park as well as the parks summarized in Table 4-1, Existing Parks.

The City of Fountain Valley is participating in a school/park program (the schools listed in Table 4-1 with asterisk symbols are those participating in the school/park program). This program involves joint use of school grounds for the purpose of park land and facilities. This program has proven to be advantageous to the City, the school district and the community's citizens for the following reasons:

- o Land is available at no cost to the City.

TABLE 4-1
Existing Parks

Neighborhood Parks

Allen Park*
16149 Mesquite Street
3.9 acres

Cordata Park
18761 Cordata Street
4.53 acres

Helm Park
9170 Helm Avenue
3.1 acres

La Capilla Park
9720 La Capilla Avenue
2.37 acres

Monroe Park*
11370 Mt. Bodie
2.75 acres

Stonecress Park
11240 Stonecress Avenue
2.22 acres

Colony Park
10252 Cinco de Mayo
.68 acres

Ellis Park
10301 Ellis Avenue
3.0 acres

Vista View Park
9235 Honeysuckle Avenue
3.03 acres

Los Alamos
17901 Los Alamos Street
4.0 acres

Plavan Park*
9745 Warner Avenue
2.06 acres

Community Parks

Courreges Park**
8664 Rogue River Avenue
10.0 acres

Harper Park
8675 Bluebird Avenue
8.14 acres

Heritage Park (fee use park)
10200 Slater Avenue
1.0 acre

Fulton Park**
8620 El Lago Avenue
7.58 acres

Westmont Park North**
El Rancho/La Fiesta
11.39 acres

Regional Park

Mile Square Park***
16801 Euclid Avenue
640 acres

- * Indicates a joint use agreement between the School District and Parks Department. (Does not include school property.)
- ** Includes acreage within the SCE easement only.
- *** Includes Fountain Valley Recreational and Cultural Center (55 acres).

- o Site locations are convenient since parks are located in areas familiar to children.
- o Useful facilities, not generally provided on school grounds, are made available on park grounds.
- o A more thorough land use is achieved.
- o Overall physical appearance is enhanced.
- o Recreation equipment at the school is expanded as is park usefulness.
- o Existing school parking areas may be further utilized for park patrons.

Goal

- 4.1 Provide park and recreation opportunities that enable residents of all ages to use their leisure time in a rewarding, relaxing and creative manner.

Policies

- 4.1.1 Utilize available park and recreation funds to maximize the public's benefit.
- 4.1.2 Continue to develop neighborhood and community parks as well as special facilities such as interpretive nature parks, and bicycle, hiking or equestrian trails.
- 4.1.3 Rehabilitate and upgrade existing park facilities.
- 4.1.4 Maintain landscaping in parks, parkways and medians.
- 4.1.5 The City shall coordinate with community groups and neighborhoods in developing a tree replacement program for those existing trees which must be removed along public and private streets.

- 4.1.6 Dead and missing trees will be replaced and additional trees will be added where possible.

- 4.1.7 Ensure that neighborhood parks meet the particular needs of the residents they serve.

- 4.1.8 Provide for pedestrian and bicycle trails as linkages between open space and recreation facilities within the community.

- 4.1.9 Provide family oriented activities and community oriented opportunities to the citizens of Fountain Valley.

Goal

- 4.2 Maximize the recreational and open space opportunities afforded by Mile Square Park within the City.

Policies

- 4.2.1 The City will work with the County and the federal government to ensure that Mile Square Park will remain an important recreation amenity for the community.
- 4.2.2 The City shall review and coordinate concerns with the County of Orange, the Department of the Interior and other applicable agencies and organizations regarding the operation of Mile Square Park's year round activities as well as special events.

4.3 OPEN SPACE

The large parcels of open space and agriculture land that once characterized Fountain Valley have primarily been urbanized into a mix of residential, commercial and light industrial development interspersed with park land, green belts, play grounds and

general open space areas.

The primary area of open space within the City is the Southern California Edison (SCE) easement and Mile Square Park.

The Southern California Edison Easement runs parallel to Newland Street and provides approximately 48 acres of open space area, of which 38 acres is made up of developed parkland. Easement land adjacent to school sites is used as open park space and typically has additional amenities such as play areas/tot lots and par fitness courses. Other portions of the greenbelt are used by nurseries and as Christmas tree lots.

In addition, as discussed in further detail in the Parks and Recreation Section of this Chapter, Mile Square Park offers a valuable open space amenity. The Park, located at the north end of Fountain Valley, is a large regional park, with a total of 640 acres of public land dedicated for recreational use.

Goal

- 4.3 Conserve, protect and enhance the natural resources in Fountain Valley.

Policy

- 4.3.1 Ensure the optimal use and support of the natural resources in the City for the benefit of all present and future citizens of the City.

5.0 CONSERVATION



CHAPTER 5.0

CONSERVATION

5.1 INTRODUCTION

The State of California Government Code requires the incorporation of a conservation element in all jurisdictional general plans. The requirement for inclusion of a conservation element within a general plan is addressed in Section 65302(d) as follows:

"The general plan shall include a conservation element for the conservation, development, and utilization of natural resources including water and its hydraulic forces, forest, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. That portion of the conservation element including waters shall be developed in coordination with any countywide water agency and with all district and city agencies which have developed, served, controlled or conserved water for any purpose for the county or city for which the plan is prepared."

Goal

- 5.1 Conserve, protect and enhance the natural resources in Fountain Valley to ensure their optimal use and support to the benefit of all present and future citizens of the City.

Policy

- 5.1.1 Develop an environmental mitigation monitoring program to address the natural resources found in Fountain Valley.

5.2 WATER RESOURCES

Underground Water Supply

Four major groundwater basins are located in Orange County: The Lower Santa Ana, La Habra, Aliso, and San Juan units. Of these, the Lower Santa Ana Basin, which underlies the City of Fountain Valley, is by far the most important as a source of water supply. Under full storage, the basin is estimated to contain 15.8 million acre-feet (AF) of fresh water, with about 1.5 million AF believed to be usable for water supply purposes.

Fountain Valley derives 70% of its water from local groundwater sources. The City has seven wells with one more proposed to be built.

None of the City's wells have been affected by earthquakes, pollution, chemicals, lack of proper technology, industrial or commercial use or agriculture. There is ongoing replacement and maintenance of pipes to prevent age deterioration. The City adds chlorine, which kills iron bacteria that might accumulate in the wells and water lines. The City also has a routine program which utilizes sterilizing chemicals to kill bacteria.

Water Conservation

In the late 1980's, California experienced an extended drought period. In response to this event, the Fountain Valley City council adopted a Water Conservation Ordinance in August, 1990. The Council adoption of this ordinance provides methods of reducing the demand for water when a drought occurs.

This Water Conservation Ordinance prompts water conservation in three increasingly aggressive stages as declared by City Council. Only the City Council may declare any of the stages to be in effect. Some of the water conservation

methods specified in the ordinance include: 1) voluntary cutback by 10%; 2) no day watering; and 3) specifically forbidden tasks.

The City has an agreement with the Orange County Municipal Water District which will provide reclaimed water for irrigating large turf areas. Reclaimed water will conserve about 800 AF of potable water per year. In addition, the City's use of Green Acres Project reclaimed water, once it becomes available, will ease the demand for potable water. Green Acres Project reclaimed water will be used to irrigate large landscaped areas, such as parks, golf courses, and freeway landscaping.

Water Quality

The quality and safety of drinking water in the United States is regulated by the federal government through the Environmental Protection Agency (USEPA). In California, those standards are enforced by the California Department of Health and Services (DHS). The City of Fountain Valley takes many precautions to ensure high quality water to all of its consumers, including conducting several thousand tests on City water every year. Fountain Valley water continues to pass these strict water quality requirements with ease and meets or exceeds all State and Federal standards for drinking water quality.

The Metropolitan Water District of Southern California operates several filtration plants to treat both the Colorado River and the State Water Project water supplies. The two Metropolitan treatment plants that serve Orange County are the Weymouth and Diemer Plants. They are financed by consumers. Both plants sustain constant ongoing maintenance to assure adequate operation.

Groundwater is known as the better source for water with better quality. As

mentioned previously, Fountain Valley derives 70% of its water from local groundwater sources. Imported water, such as water from Northern California, typically has higher total dissolved solids and higher organics. However, this would not effect Fountain Valley's water because all of the imported water arrives to the city already blended and treated by either the Weymouth or Diemer Treatment Plants (this imported water is also tested regularly). All test results indicate that the water supplied to the Fountain Valley consumer is of excellent quality.

Drainage Patterns and Flood Hazard

The Santa Ana River, which carries runoff from large portions of Orange, Riverside, and San Bernardino Counties, provides storm water for recharging the Santa Ana Basin by percolation ponds. Areas directly adjacent to the Santa Ana River may be expected to be flooded by water ranging from 1 to 3 feet in depth in the event of a 100-year storm, as discussed in Chapter 8, Safety.

Recently the U.S. Army Corps of Engineers appropriated \$80 million for the first phase of flood control improvements to the Santa Ana River. These improvements would include widening a portion of the Santa Ana River near its mouth, creating a water storage area below Irvine Lake, and building a new dam on the upper reaches of the river in the vicinity of Mentone.

Goal

- 5.2 Protect Fountain Valley's existing and future water resources.

Policies

- 5.2.1 Conserve scarce water resources.
- 5.2.2 Work with federal, State and County governments and agencies to maintain and improve the quality and quantity of local and regional groundwater resources

available to the City.

5.3 GEOLOGICAL RESOURCES

Prior to the City's incorporation and the channelization of the Santa Ana River, the river meandered freely through this valley area, forming swampland throughout most of the planning area. Therefore, most of the City is comprised primarily of alluvial sediments with interbedded silts and sands. Areas of the City also contain irregular lenses of peat varying in thickness from a few inches to a few feet.

Soils

Almost all of Fountain Valley is located on a gently sloping flood zone. The soils found within the City are those typically found on slopes which are less than 5%, and are usually moderately alkaline and to varying degrees, calcareous. Vegetation found on these soils are typically grasses and forbs. Soil types range from those with poor drainage to those that are excessively drained. All of the soils within the City are good for crops and are also recommended for urban development.

Goal

- 5.3 Minimal soil erosion.

Policy

- 5.3.1 Reduce soil erosion from wind and water.

5.4 BIOLOGICAL RESOURCES

Fountain Valley is almost fully developed as are all of the surrounding cities. The presence of significant biological resources seems to be virtually non-existent. All areas of Fountain Valley have been built upon or farmed,

eliminating virtually all forms of natural vegetation or wild life habitat.

Flora

The little natural vegetation which does exist within the City consists primarily of a variety of grasses with small sage scrub communities. Immediately outside the City limits, within the Santa Ana River channel, small wetlands habitats are known to periodically occur, due to sand and silt build-up in the channel bottom.

Fauna

Fossil evidence indicates that the planning area was once inhabited by a variety of wildlife, ranging from shrews and rats to larger mammals. Today, the range of wildlife has been significantly reduced to those species which have adapted to close human contact. What remains is an abbreviated predator-prey food chain consisting of ground squirrels, foxes, gophers, opossums, White-tail Kites, and Redtail Hawks. Mile Square Park also supports a variety of birds and ducks on the ponds on site.

Plant communities along the Santa Ana River, and adjacent to the Fairview Park site, in Costa Mesa immediately east of Fountain Valley, support a diversity of wildlife including two rare species: the Coast Horned Lizard and the Trap Door Spider. Also in Costa Mesa, the pond adjacent to the Santa Ana River, south of Victoria Street, has been proposed by the U.S. Department of the Interior as an "essential habitat" for the California Least Tern, which is on both the State and Federal lists of endangered species. Although these areas are not within the City of Fountain Valley itself, due to their close proximity to Fountain Valley there may be some migration of these species. Therefore, there may be some occurrence of the Least Tern, Coast

Horned Lizard and the Trap Door Spider in Fountain Valley.

The burrowing owl is on the Audobon Society list of rare birds and is likely to inhabit certain areas of the city, such as Mile Square Park.

Goal

- 5.4 Conservation of Fountain Valley's biological resources.

Policy

- 5.4.1 Conserve and enhance biological resources by facilitating development in a manner which reflects the characteristics, sensitivities and constraints of these resources.

5.6 ENERGY

Energy sources play an important role in the continued urbanization of a community. Most traditional energy sources are imported: natural gas is imported by the Southern California Gas Company, while electricity is furnished by Southern California Edison. Distribution systems for both natural gas and electricity are presently in place or planned for reasonable future development within Fountain Valley.

Although Fountain Valley has an adequate supply of energy resources at this time, for the long term, the community will need to work with local utility companies to examine supplementing local demands with alternative energy sources, such as wind and solar energy, just as every Southern California community will have to do.

Goal

- 5.5 Energy conservation.

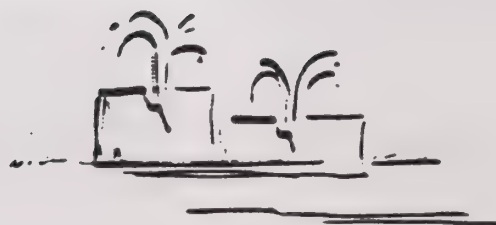
Policies

- 5.5.1 Facilitate the conservation of scarce energy resources.
- 5.5.2 The City will encourage the use of alternate energy sources, including passive solar, in industrial, commercial and residential development.
- 5.5.3 While maintaining its current recycling policies, the City shall adopt additional incentives, regulations and procedures to further specify local recycling requirements and evaluate the potential for developing a recycling and/or composting center.
- 5.5.4 The City shall coordinate with community groups and neighborhoods in developing a tree replacement program for those existing trees which must be removed along public and private streets.

5.7 SOLID WASTE

In accordance with the California Integrated Waste Management Act, the City of Fountain Valley has prepared, adopted, and submitted to the County of Orange, a Source Reduction and Recycling Element which complies with all requirements of State law.

6.0 PUBLIC SAFETY



CHAPTER 6.0

PUBLIC SAFETY ELEMENT

6.1 INTRODUCTION

The State of California Government Code Section 65302(g) requires a safety element in all city and county plans, as follows:

"The general plan shall include a safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence and other geologic hazards known to the legislative body; flooding; and wildland and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards."

The effect of this legislation is to require local communities to be particularly cognizant of fire and geologic hazards and to incorporate in their planning programs various means for reducing loss of life, injuries, damage to property, and economic and social dislocations resulting from fire and dangerous geologic events, such as seismic activity or seismically induced liquefaction, as is the case in Fountain Valley.

In addition to the State's requirement to pay particular attention to fire and geologic hazards, Fountain Valley has potential flood problems related to the Santa Ana River, as well as hazardous materials and waste related to certain commercial and industrial uses. In

addition, the City is concerned with the provision of police protection and services, as well as maintenance of its Emergency Operations Center.

The Emergency Operations Center provides a centralized focus of emergency management in the event of a major emergency or disaster within the City. The EOC operations are directed by the City Manager, emergency management staff (City Department heads), and representatives from organizations who are assigned emergency responsibilities (Red Cross, schools, hospitals, etc.). The EOC has three potential operations centers ranked in order of priority:

Primary:	Police Station 10200 Slater
Secondary:	City Yard
Third:	Recreation Center 16400 Brookhurst

In addition to "fixed" facilities, the City has a mobile command vehicle capable of serving as a limited use EOC in a field environment. This vehicle is radio equipped, operational 24 hours and parked at the City Yard at 18240 Ward, Fountain Valley.

The primary EOC is located within the Police Department Squad Room and has 24 hour security. Strict control of non-departmental personnel is maintained at the lobby entrance by a sworn police representative.

The EOC is equipped with essential administrative supplies to sustain operations for an extended period of time. In addition, all necessary forms, i.e. Communications Message Forms, Separate journals for each Emergency Service, Shelter Registration Cards, Volunteer Registration Forms, Emergency Requisition Forms, Damage Assessment Survey Sheets for all possible contingencies are stocked in the EOC.

A separate "activation procedure" book has been developed and is kept at the Police Dispatch Center, the Police Squad Room (EOC itself) and in the office of the Emergency Preparedness Coordinator.

Lines of Succession and Alternate Officials

Provisions for preservation of local government are covered by the California Emergency Services Act (Government Code, Chapter 7 of Division 1 of Title 2). In the event of war-caused vacancies, the City Council will reconstitute itself in accordance with the provisions of that Act (Article 15, Section 8642, 8643 and 8644).

A successor to the position of City Manager (Director of Emergency Services/Civil Defense) is appointed by the City Council. Should the Director be unable to serve, individuals who hold permanent appointments to the following positions in government will automatically serve as Acting Director, in the order shown, and serve until a successor has been appointed by the City Council and seated. An individual serving as Acting Director shall have the authority and powers of the Director.

Assistant City Manager	First Alternate
Police Chief	Second Alternate
Public Works Director	Third Alternate
Fire Chief	Fourth Alternate
Planning Director	Fifth Alternate

Depending on the nature of the disaster, the order of succession should be modified based on the following criteria:

Fire Chief	Second Alternate
Hazardous Materials Incident	

Public Works Director	Second Alternate
Floods	

Police Chief	Second Alternate
Riots, civil disturbances	

Temporary Seat of Government

City Council shall designate alternate sites which may be located outside City boundaries.

In the event the normal location of City Hall is not practical because of emergency conditions, the temporary seat of government will be as follows:

Police Station	First Alternate
Fountain Valley Recreation Center	Second Alternate
Community Center	Third Alternate

Preservation of Vital Records

Vital records are defined as those records that are essential to:

- o Protect the rights and interests of individuals and organizations. Examples include vital statistics, land and tax records, license registers, and articles of incorporation.
- o Conduct emergency response and recovery operations. Records of this type include utility system maps, locations of emergency supplies and equipment, Emergency Operating Procedures and personnel rosters.
- o Reestablish normal governmental functions. Included in this group are charter, statutes, ordinances, court records, and financial records.

Each level of government down to the departmental level is responsible for designating a custodian for vital records, and ensuring that vital records storage and preservation is accomplished.

The City Clerk is the designated custodian of vital records.

Public Safety Facilities are shown in Figure 6-1.

Goal

- 6.1 Minimize hazards to public health, safety and welfare resulting from natural and man-made hazards.

Policies

- 6.1.1 Improve the City's ability to respond to large scale emergencies.
- 6.1.2 The City shall update, on a regular basis, the multi-hazard functional plan to ensure that emergency response and evacuation routes are accessible throughout the entire City.
- 6.1.3 Educate and coordinate preparation of private sector emergency plans.

6.2 GEOLOGIC HAZARDS

Seismic Conditions

Fountain Valley, like most cities in California, is located in a seismically active region. It can be expected, therefore, that a significant seismic event will affect the community. The timing and magnitude of such an event cannot be predicted, although planning efforts for emergency response must be based on the certainty of such an event.

Abrupt movements along faults are the cause of earthquakes. These movements can result in both primary and secondary hazards. Primary hazards result directly from ground motion and include ground rupture along the trace of the fault and ground shaking. Secondary hazards result from the interaction of the shaking and existing

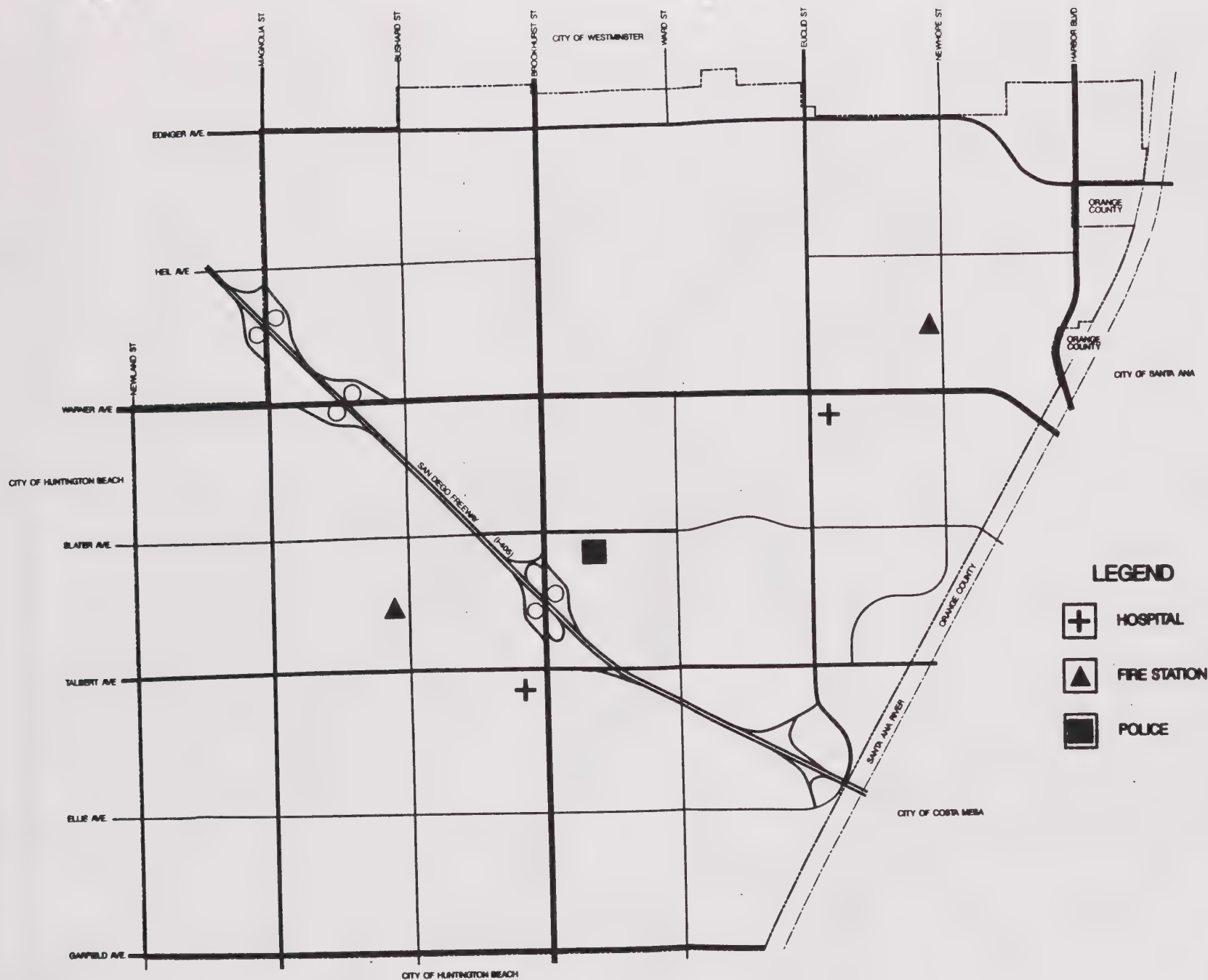
ground instabilities. They include settlement, landslides, and liquefaction (a sudden loss of strength in water-saturated sediments).

Earthquake shaking at a particular site is a function of both distance to the fault and site geology. The majority of the Fountain Valley planning area has been classified in terms of intensity as an 8 on the Rossi-Forel Intensity Scale on a scale of 1 to 10; 10 being most likely to suffer surface fault rupture, liquefaction or other ground failure. Fountain Valley has a high potential of ground failure including liquefaction and settlement due to the high content of ground water. The City could suffer shocks strong enough to cause severe structural damage.

Area Faults

Fountain Valley is fortunate not to have any faults within the City's boundaries although liquefaction could cause a major threat to the area should a significant seismic event occur. In the last 60 years, the vicinity around Fountain Valley has experienced fifteen earthquakes ranging in Richter Scale readings from 4.5 to 6.5 magnitude. Most of these events have been attributed to the two faults located nearest to the planning area; the Newport-Inglewood Fault, which angles from offshore near Dana Point inland through the City of Newport Beach, on into Los Angeles County through Long Beach, and into Torrance, and; the Whittier-Elsinore Fault, which follows a general line easterly of the Santa Ana Mountains into Mexico, as shown on Figure 6-2, Regional Seismicity.

Other faults outside of Orange County could cause significant damage in Fountain Valley as well. Faults located in the 50 mile radius of Fountain Valley are the San Andreas, San Jacinto (including Imperial and Superstition Hills), Norwalk, Malibu-Coast-Raymond, Palos Verde, San Gabriel and Sierra Madre-Santa-Susana-Cucamonga



Public Safety Facilities Fountain Valley—General Plan Update

Figure 6-1



Regional Seismicity
Fountain Valley

Figure 6-2

(including "San Fernando") faults. Any fault located within a fifty-mile radius is considered noteworthy and should be considered as a potential hazard that could cause minor to moderate damage depending on the magnitude.

Alquist-Priolo Special Studies Zones

The Alquist-Priolo Special Studies Zone Act was signed into law in 1972. The purpose of this Act is to prohibit the location of most structures for human occupancy across the traces of the active faults within a Special Studies Zone, thereby minimizing the hazard of fault rupture for future occupants of the area. Unless proven otherwise, the area within 50 feet of an active fault is presumed to be underlain by that fault. Because Fountain Valley does not have known faults extending within its boundaries, there are no Special Studies Zones located within the City.

Liquefaction

Liquefaction is a process whereby strong earthquake shaking causes sediment layers that are saturated with groundwater to lose strength and behave as a fluid. This subsurface process can lead to near-surface or surface ground failure that can result in property damage and structural failure. Groundwater which is less than ten feet to the surface can cause the highest liquefaction susceptibility. Groundwater ten to thirty feet below the surface can create a moderately high to moderate susceptibility. Groundwater thirty to fifty feet deep can create a moderate to low susceptibility, see Figure 6-3.

Ground water in Fountain Valley is less than ten feet from the surface probably due to the swampland that existed within the planning area in the early 1900's, therefore, liquefaction in Fountain Valley has a very high potential.

Seismic Seiches

Seismic seiches are waves which can occur in a body of water as a result of seismic shaking. Seiching has been known to occur within storage tanks located near a fault, as it did in the 1971 San Fernando earthquake. In extreme cases, such waves can rupture a water tank. Fountain Valley has a large waste water treatment facility located within its city limits that has a high probability of being damaged and/or shutdown. In addition there are five (5) waste water pipelines that run to and from this treatment facility.

Goal

- 6.2 Minimize hazards to public health, safety and welfare resulting from geotechnical hazards.

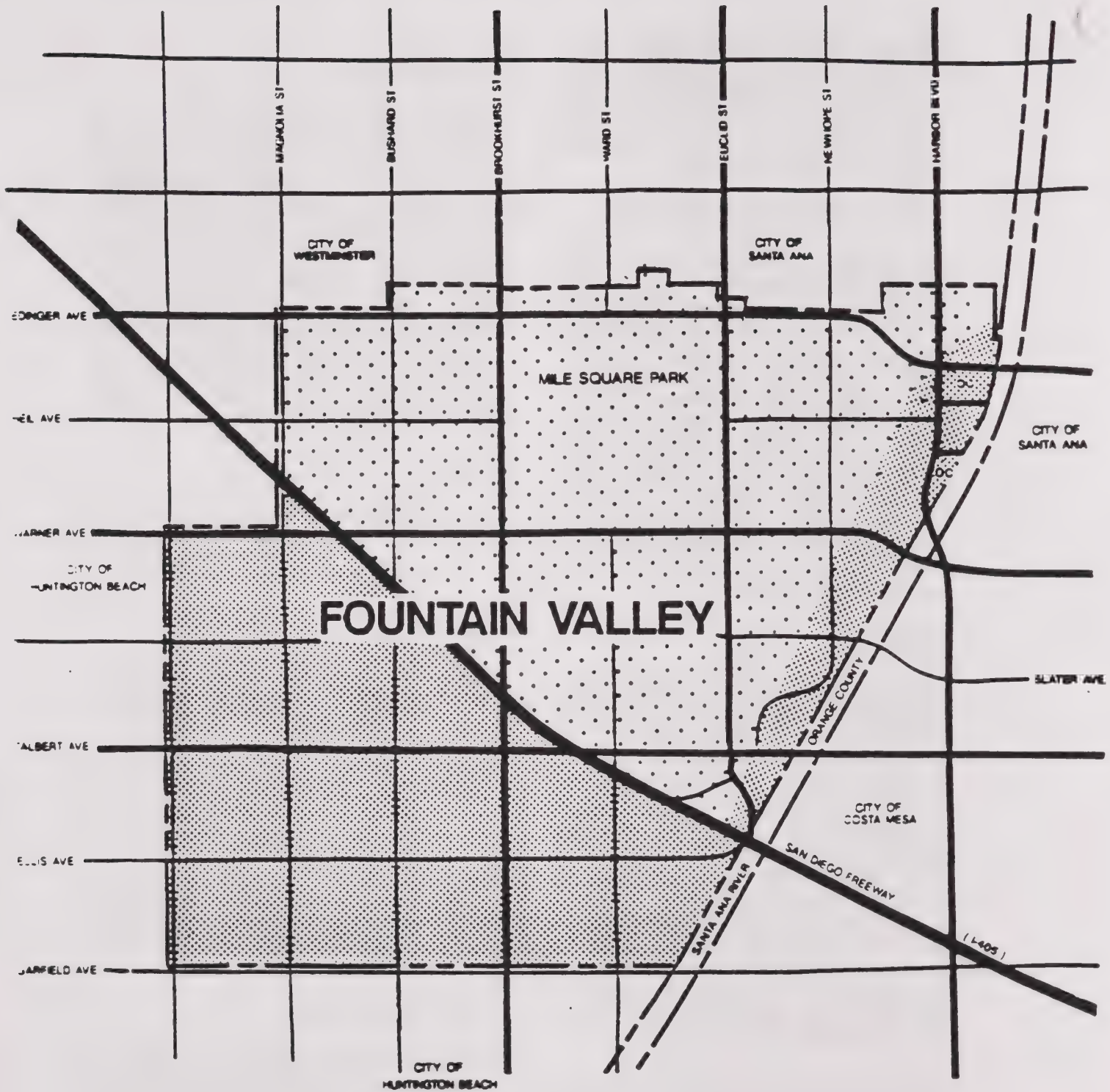
Policies

- 6.2.1 The City shall promote increased public awareness regarding seismic safety.
- 6.2.2 Coordinate and cooperate with other agencies within the County to assist in the mitigation of geologic and seismic hazards.
- 6.2.3 Develop a program to identify and rehabilitate seismically vulnerable structures within the City.

6.3 FLOODING

Virtually all of the City of Fountain Valley is within the 100 year floodplain, with a small portion of the City on the western edge within the 500 year floodplain, as reflected on Figure 6-4.

The Santa Ana River, which carries runoff from large portions of Orange, Riverside, and San Bernardino Counties, provides the greatest flood hazard



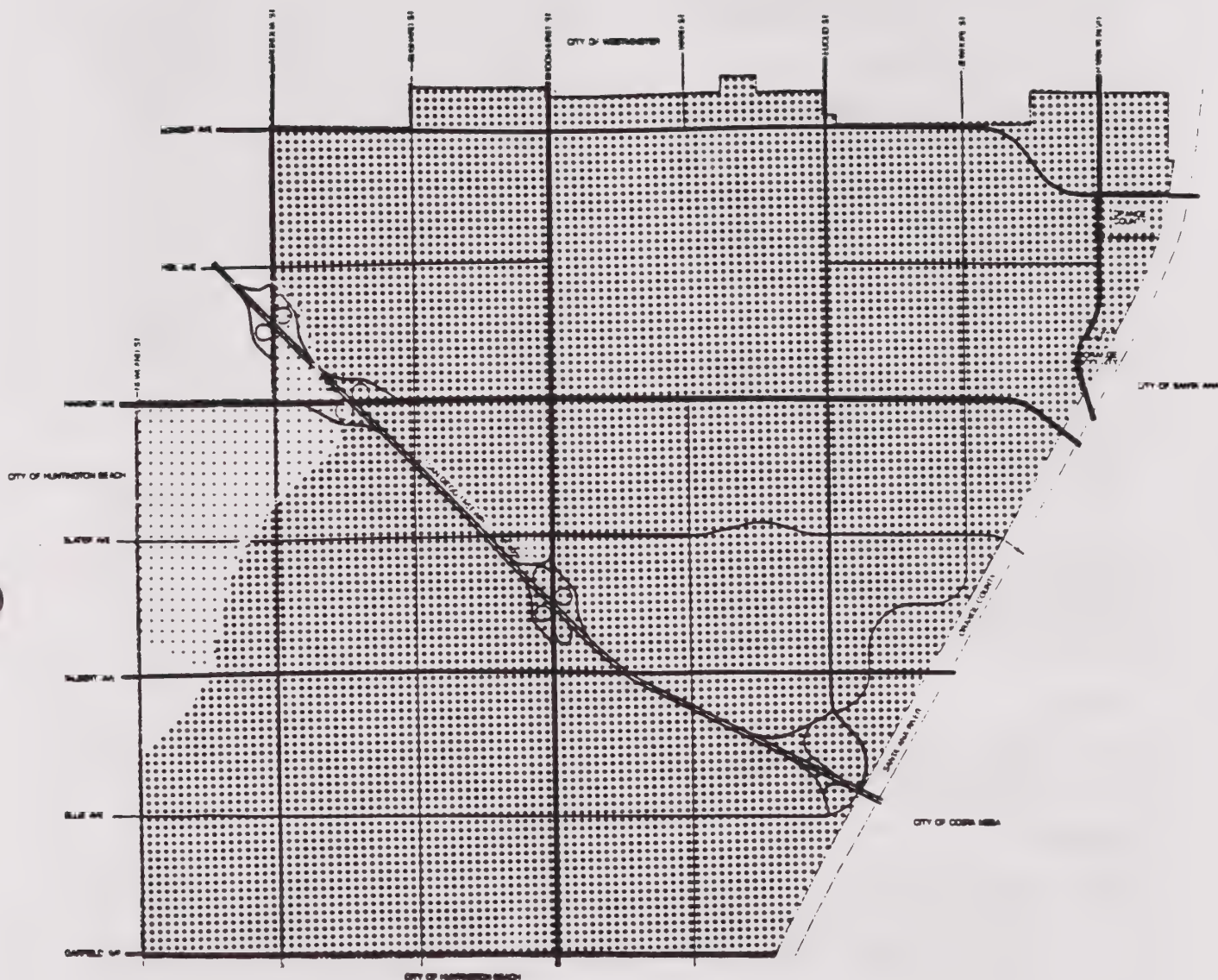
Liquefaction

Figure 6-3

Fountain Valley



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LEGEND



100 YEAR FLOOD HAZARD AREA



500 YEAR FLOOD HAZARD AREA

Flood Hazard Potential
Fountain Valley

Figure 6-4



THE
KEITH
COMPANY
7/31/

potential for Fountain Valley. Areas directly adjacent to the Santa Ana River may be expected to be flooded by water ranging from 1 to 3 feet in depth in the event of 100-year storm.

The Federal Emergency Management Agency (FEMA) National Flood Insurance Program's Flood Insurance Map shows that the Federal Government has determined that Fountain Valley is almost entirely in the Federal Insurance Agency Hazard Zone and is subject to widespread flooding.

Recently the U.S. Army Corps of Engineers appropriated \$80 million for the first phase of improvements to the Santa Ana River; the federal government has approved a total of \$1.4 billion over a ten year period. The flood control project would include widening a portion of the Santa Ana River near the river's mouth, creating a water-storage area below Irvine Lake, and building a new dam in the vicinity of Mentone.

Goal

- 6.3 Minimize risk and damage from flood hazards within the City.

Policies

- 6.3.1 Maintain siting and development standards to reduce risk and damage from flood hazards within the City.
- 6.3.2 The City shall cooperate with local, State and Federal flood control agencies to reduce the potential for flood damage in the City of Fountain Valley.
- 6.3.3 The City shall increase public awareness of flood hazards.
- 6.3.4 Minimize the adverse effects of urbanization upon drainage and flood control facilities.

6.4 FIRE

Fire prevention, fire protection, emergency medical aid and citizen safety protection within the City are provided by the City of Fountain Valley Fire Department. The City of Fountain Valley maintains a comprehensive Automatic Aid Agreement for fire protection and emergency medical aid services with the contiguous cities of Santa Ana, Costa Mesa, Newport Beach, Huntington Beach, Westminster and the County of Orange. This agreement provides the shortest possible emergency response time, and includes training, arson investigation, communications and weekly administrative coordination between all entities.

The City of Fountain Valley is signatory to the California Mutual Aid Fire Protection System. This agreement was established to provide assistance for major emergency incidents anywhere in the State.

Goal

- 6.4 Minimize fire losses and damage within the City.

Policies

- 6.4.1 Increase the Fire Prevention Division's ability to provide service and effectiveness in delivering and administering programs to both the Department and the community.
- 6.4.2 Enhance the City's fire protection capabilities.
- 6.4.3 Develop new and expand existing public fire safety education programs (including disaster preparedness), continue to be proactive in public safety education.

6.5 HAZARDOUS WASTE

Proper hazardous waste management constitutes one of the state's major environmental concerns. Hazardous chemicals play an important role in our modern society. They contribute to the manufacture of a vast array of consumer products (i.e., television, computers, automobiles, and medicines) and the convenience of consumer services (i.e., dry cleaners, automotive repair). While these goods and services add to our quality of life, they also cause the generation of hazardous waste. Reducing our reliance on hazardous materials would reduce the generation of waste.

Releases of explosives and highly flammable materials and toxic chemicals in gaseous form have caused injuries and fatalities statewide. When toxic materials have entered either surface or ground water supplies, serious health effects have resulted. Releases of hazardous chemicals have been especially damaging when they have occurred in highly populated areas or along heavily travelled transportation routes.

Hazardous waste will continue to be generated, however, since some materials have no substitutes. For this reason, comprehensive planning is necessary to identify and promote programs for the reduction of hazardous waste and the safe management of wastes that remain after treatment or recycling.

Hazardous waste can be categorized into five major groups: hazardous material, hazardous waste, infectious waste, radioactive material and nuclear materials (San Onofre Nuclear Generation Station or SONGS). Sources of hazardous material include manufacturing and service industries, nuclear plants, agriculture, military bases, hospitals, schools and households.

Hazardous wastes can be solids, liquids, gases or sludges. A major issue

concerning hazardous wastes is the potential of an accidental release occurring. It can occur during any stage of handling, but particularly during storage and disposal.

Hazardous material incidents differ from other emergency situations because of their unpredictable nature and the possibility of long-range toxic effects. The circumstances and geographic features in the vicinity of incidents varies greatly. Incidents may occur at fixed facilities where the opportunity for development of site specific safety plans is possible. Fountain Valley has had hazardous materials incidents at fixed facilities. Hazardous materials incidents may also occur at any place along any transportation route and in the case of illegal dumping, may occur in remote areas.

The Los Angeles region, of which Orange County is considered a part, is the third highest hazardous waste generation area in California according to the Department of Health and Services (DOHS).

The increasing volume and variety of hazardous materials that are generated, stored or transported within Fountain Valley can create risk to human health and the environment. The City of Fountain Valley is particularly vulnerable to hazardous materials accidents caused by transportation accidents. The City is divided by the I-405 Freeway and contains heavily travelled routes both north and south. The City estimates that one out of every ten trucks is carrying some form of hazardous material. To address this issue, the City has established a multi-hazard functional plan, part of which specifically addresses threat involved in the manufacture, storage, disposal and transportation of hazardous waste.

Industrial and commercial businesses are located throughout the City and process,

store and/or manufacture a wide variety of hazardous materials. The most vulnerable area of the City is the east side, from Warner Avenue, south to Garfield Avenue and along the Santa Ana River. The largest firm posing a threat is the Orange County Sanitation District. Radiological materials are also used in hospitals and industrial applications. Some transportation of radioactive materials occurs on various routes throughout the City.

In addition, there are some abandoned oil distribution lines located throughout the City, and there are natural gas lines which parallel the freeway.

A disclosure ordinance has been adopted which requires businesses to inform the Fire Department of the types, amounts and processes used in manufacturing and storage within the City.

In accordance with State Law, the City of Fountain Valley has prepared, adopted and submitted to the County of Orange a household hazardous waste element which identifies a program for the safe collection and disposal of hazardous wastes generated by households in the City.

Goal

- 6.5 Effective management and disposal of hazardous waste on a Citywide level.

Policies

- 6.5.1 Cooperate with Federal and State hazardous waste management plans to protect the health and welfare of the public, the environment and the economy of the City of Fountain Valley through comprehensive programs that ensure safe and responsible management of hazardous waste and materials.

- 6.5.2 Ensure the effective management and disposal of hazardous waste on a Citywide level.

- 6.5.3 Promote public participation and education in the implementation of the programs identified in this Element and the County's Hazardous Waste Management Program.

6.6 LAW ENFORCEMENT

Staffing

The City Police Force is presently headquartered in the City's Civic Center, at 10200 Slater Avenue. Currently, the City of Fountain Valley Police Department has 61 authorized sworn officers which is approximately one (1) police officer for every 1,000 residents of the City. The City standards for officer training are those set forth under the State guidelines of Police Officers Standards and Training (POST).

The Police Department is divided into three divisions: Patrol (dispatchers, traffic and K-9), Administration (records and crime lab), and Investigation (which includes the Law Enforcement Apprehension Program or LEAP, vice, narcotics, burglary and property investigation).

The City also employs civilian personnel who are hired for pay or on a volunteer basis for performing administrative tasks and auxiliary duties. In addition, the City has a new program, called Retired Seniors Volunteer Program, or RSVP, an auxiliary patrol group of senior citizens who are well trained, donating their time to perform activities such as residential vacation checks, business and residence security inspections, and parking enforcement for specific problems such as handicapped and fire zone violations. The senior volunteers

do not carry weapons nor are they assigned to any activity which could pose any danger.

Special programs which are offered to the community by the Police Department include: the Law Enforcement Apprehension Program (LEAP), Drug Abuse Resistance Education (DARE), and the Crime Prevention Program. In addition, a Neighborhood Watch Program is in effect in the community, every resident in the City is a member of the program, although not all residents participate. Neighborhood meetings and a newsletter are distributed through this program. Additional programs offered through Neighborhood Watch are the Disaster Preparedness (in support of the City's goals and objectives), and Child Awareness Programs, as well as a Baby Sitting Clinic.

The Neighborhood Watch office is located in the Police Station at the Civic Center and all costs associated with the office operations are funded through the Police Department.

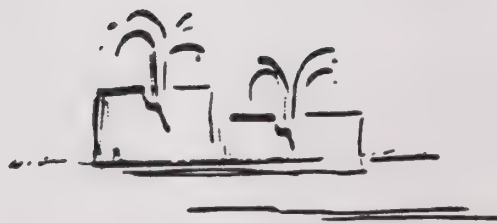
Goal

- 6.6 A safe and secure environment for the City's residents, workers and visitors.

Policies

- 6.6.1 Enhance the City police protection capabilities.
- 6.6.2 The City shall continue to encourage and expand community programs to assist police protection.
- 6.6.3 The Police Department will continue to review development proposals to determine the impacts of such development on emergency services.

7.0 NOISE



CHAPTER 7.0

NOISE

7.1 INTRODUCTION

The State of California has mandated that each county and city prepare a Noise Element as part of its General Plan. Section 65302(g) of the California Government Code requires specifically:

"(g) A noise Element shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Services and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:

Highways and freeways.

Primary arterials and major local streets.

Passenger and freight on-line railroad operations and ground rapid transit systems.

Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operations.

Local industrial plants, including, but not limited to, railroad classification yards.

Other ground stationary noise sources identified by local agencies as contributing to the community noise environment.

Noise contours shall be shown for all of the sources and stated in terms of community noise equivalent level (CNEL) or day-night average level (LDN). The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources identified in paragraphs (1) to (6), inclusive. The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise. The Noise Element shall include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted noise element shall serve as a guideline for compliance with the state's noise insulation standards."

The State Guidelines for Preparation and Content of Noise Elements of the General Plan indicate that the Noise Element should present the noise environment in terms of noise contours. For those areas identified as containing noise sensitive facilities, the noise environment is determined by monitoring.

7.1.1.1 Contents of Element

This Noise Element follows the recently revised State guidelines in the State Government code Section 653021(g) and Section 46050.1 of the Health and Safety Code. The Noise Element quantifies the community noise environment in terms of noise exposure contours for both near-term and long-term levels of growth and traffic activity. The information will become a guideline for the development of land use policies to achieve compatible land uses and provide baseline levels and noise source identification for local noise ordinance enforcement.

7.1.1.2 Key Issues

1. **Transportation Noise Control** - Within the City of Fountain Valley are a number of transportation related noise sources including one major highway, major arterials and collector roadways. These sources are the major contributors of noise in Fountain Valley. Cost effective strategies to reduce their influence on the community noise environment are an essential part of the Noise Element.
2. **Community Noise Control for Non-Transportation Noise Sources** - Residential land uses and areas identified as noise sensitive must be protected from excessive noise from non-transportation sources including commercial and construction activities. These impacts are most effectively controlled through the adoption and application of a City Noise Ordinance.
3. **Noise and Land Use Planning Integration** - Information relative to the existing and future noise environment within City of Fountain Valley should be integrated into future land use planning decisions. The Element presents the noise environment in order that the City may include noise impact considerations in development programs. Noise and land use compatibility guidelines are presented, as well as noise standards for new developments.

7.1.1.3 Purpose

The Noise Element of a General Plan is a comprehensive program for including noise control in the planning process. It is a tool for local planners to use in achieving and maintaining compatible land use with environmental noise levels. The Noise Element identifies noise

sensitive land uses and noise sources, and defines areas of noise impact for the purpose of developing programs to ensure that City of Fountain Valley residents will be protected from excessive noise intrusion.

7.2 DESCRIPTION OF NOISE

Noise is unwanted sound which is considered unpleasant and bothersome. Noise has become a serious environmental problem because of its adverse effects on people and the environment. People are exposed to various levels and sources of noise every day, which affects them physically and psychologically. The most apparent physiological effect of noise is the temporary, or in some cases, permanent, loss of hearing. Noise can disrupt or interfere with communication and disturb sleep. It can also decrease children's ability to discriminate among different sounds, which affects their learning ability.

7.2.1 Noise Definitions Sound is technically described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the Decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dB higher than another is judged to be twice as loud; and 20 dB higher four

times as loud; and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud). Examples of various sound levels in different environments are shown in Table 7-1.

Noise has been defined as unwanted sound and it is known to have several adverse effects on people. From these known effects of noise, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. These criteria are based on such known impacts of noise on people as hearing loss, speech interference, sleep interference, physiological responses and annoyance. Each of these potential noise impacts on people are briefly discussed in the following narratives:

HEARING LOSS is not a concern in community noise problems of this type. The potential for noise induced hearing loss is more commonly associated with occupational noise exposures in heavy industry or very noisy work environments. Noise levels in neighborhoods, even in very noisy airport environs, are not sufficiently loud to cause hearing loss.

SPEECH INTERFERENCE is one of the primary concerns in environmental noise problems. Normal conversational speech is in the range of 60 to 65 dBA, and any noise in this range or louder may interfere with speech. There are specific methods of describing speech interference as a function of distance between speaker and listener and voice level. Figure 7-1 shows the relationship between noise levels and speech interference.

SLEEP INTERFERENCE is a major noise concern because sleep is the most noise sensitive human activity. Sleep disturbance studies

have identified interior noise levels that have the potential to cause sleep disturbance. Note that sleep disturbance does not necessarily mean awakening from sleep, but can refer to altering the pattern and stages of sleep.

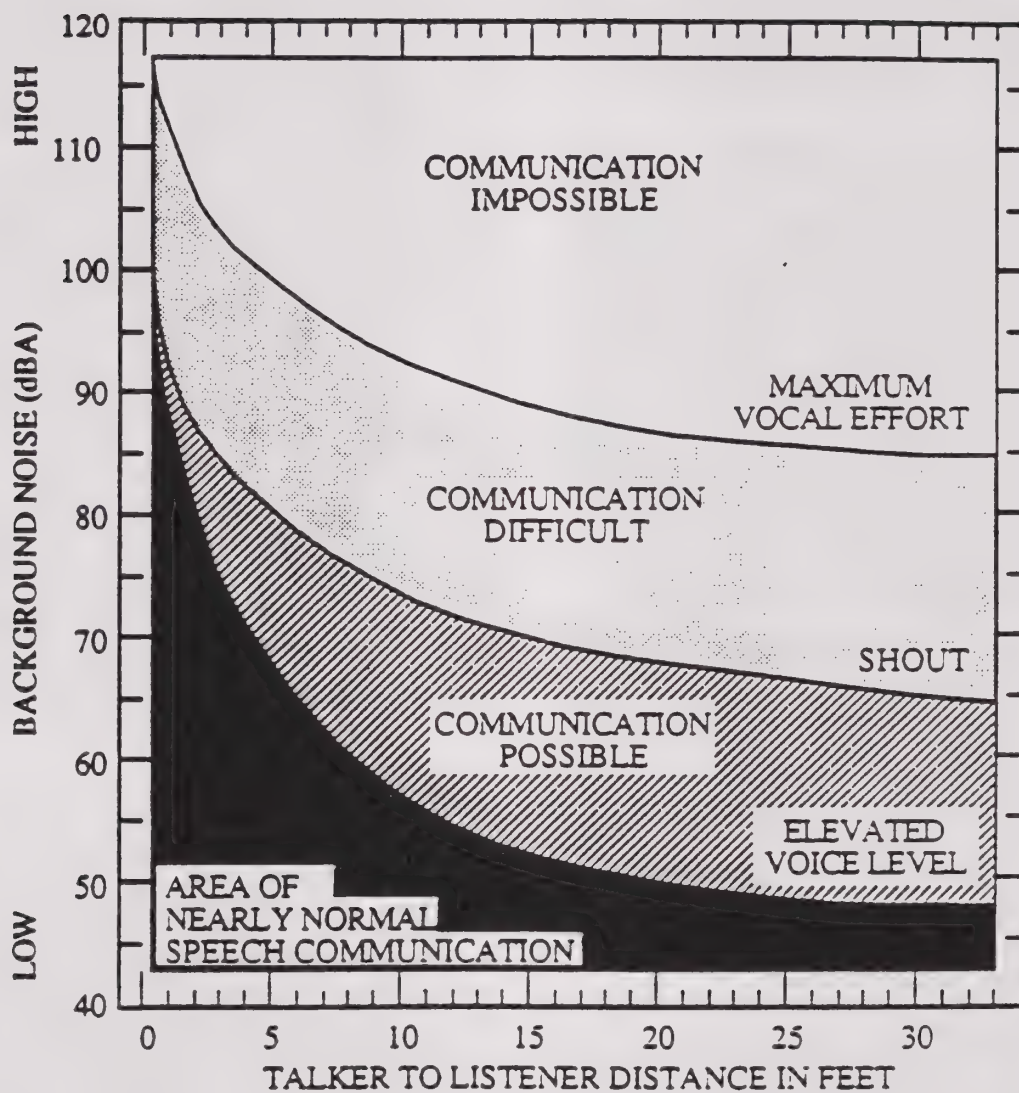
PHYSIOLOGICAL RESPONSES are those measurable effects of noise on people which are realized as changes in pulse rate, blood pressure, etc. While such effects can be induced and observed, the extent is not known to which these physiological responses cause harm or are signs of harm.

ANNOYANCE is the most difficult of all noise responses to describe. Annoyance is a very individual characteristic and can vary widely from person to person. What one person considers tolerable can be quite unbearable to another of equal hearing capability.

7.2.2 Standards

Community noise is generally not steady state and varies with time. Under conditions of fluctuating noise levels, some type of statistical metric is necessary in order to quantify noise exposure over a long period of time. Several rating scales have been developed for describing the effects of noise on people. They are designed to account for the above known effects of noise on people.

Based on these effects, the observation has been made that the potential for noise to impact people is dependent on the total acoustical energy content of the noise. A number of noise scales have been developed to account for this observation.



Source: Mestre Greve Associates

Effects of Noise on Speech Interference Fountain Valley

Figure 1

These scales are the Equivalent Noise Level (LEQ), the Day Night Noise Level (LDN), and the Community Noise Equivalent Level (CNEL). These scales are described in the following paragraphs.

LEQ is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. LEQ is the "energy" average noise level during the time period of the sample. LEQ can be measured for any time period, but is typically measured for 15 minutes, 1 hour or 24 hours.

LDN is a 24-hour, time-weighted annual average noise level. Time-weighted refers to the fact that noise which occurs during certain sensitive time periods is penalized for occurring at these times. In the LDN scale, those events that take place during the night (10 pm to 7 am) are penalized by 10 dB. This penalty was selected to attempt to account for increased human sensitivity to noise during the quieter period of a day, where sleep is the most probable activity.

CNEL is similar to the LDN scale except that it includes an additional 5 dB penalty for events that occur during the evening (7pm to 10pm) time period. Either LDN or CNEL may be used to identify community noise impacts within the Noise Element. Examples of CNEL noise levels are presented in Figure 7-2.

The public reaction to different noise levels varies from community to community. Extensive research has been conducted to human responses to exposure of different levels of noise. Figure 7-3 relates LDN noise levels (approximately equal to CNEL noise

levels) to community response from some of these surveys. Community noise standards are derived from tradeoffs between community response surveys, such as this, and economic considerations for achieving these levels.

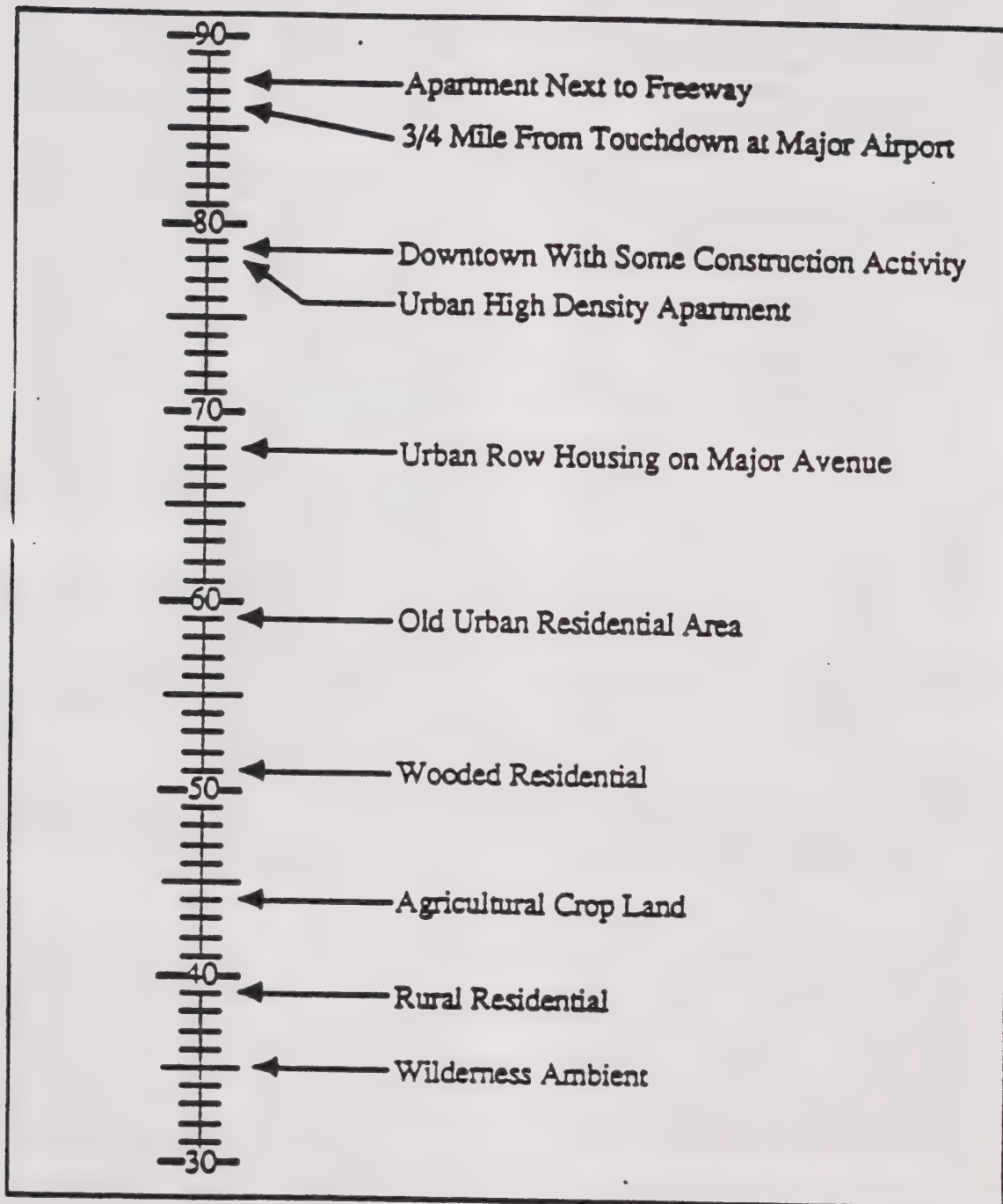
Intermittent or occasional noise such as those associated with stationary noise sources is not of sufficient volume to exceed community noise standards that are based on a time averaged scale such as the LDN scale. To account for intermittent noise, another method to characterize noise is the Percent Noise Level (L%). The Percent Noise Level is the level exceeded X% of the time during the measurement period. Examples of various noise environments in terms of the Percent Noise Levels are shown in Figure 7-4.

Noise Ordinances are typically specified in terms of the percent noise levels. Ordinances are designed to protect people from non-transportation related noise sources such as music, machinery and vehicular traffic on private property. Noise Ordinances do not apply to motor vehicle noise on public streets or other transportation related noise sources that are preempted by the State or Federal government.

Noise/Land Use Compatibility Guidelines The purpose of this section is to present information regarding the compatibility of various land uses with environmental noise. It is from these guidelines and standards, that the City of Fountain Valley Noise Criteria and Standards have been developed. Noise/Land use guidelines have been produced by a number of Federal and State agencies including the Federal Highway Administration, the Environmental Protection Agency, the Department of Housing and Urban Development, the American National Standards Institute, and the State of California. These guidelines, presented in the following paragraphs, are all

CNEL

Outdoor Location



typical Outdoor Noise Levels

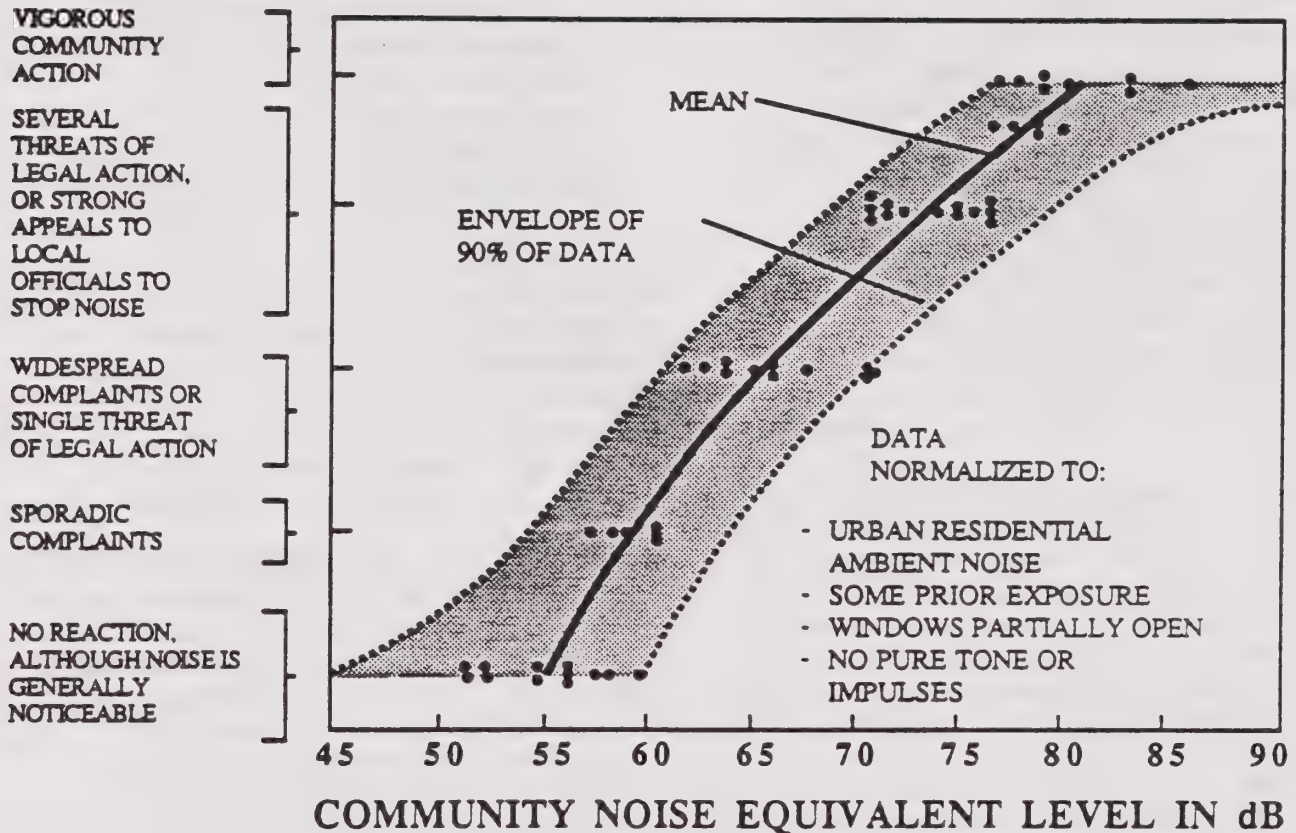
Figure 7-2

Fountain Valley

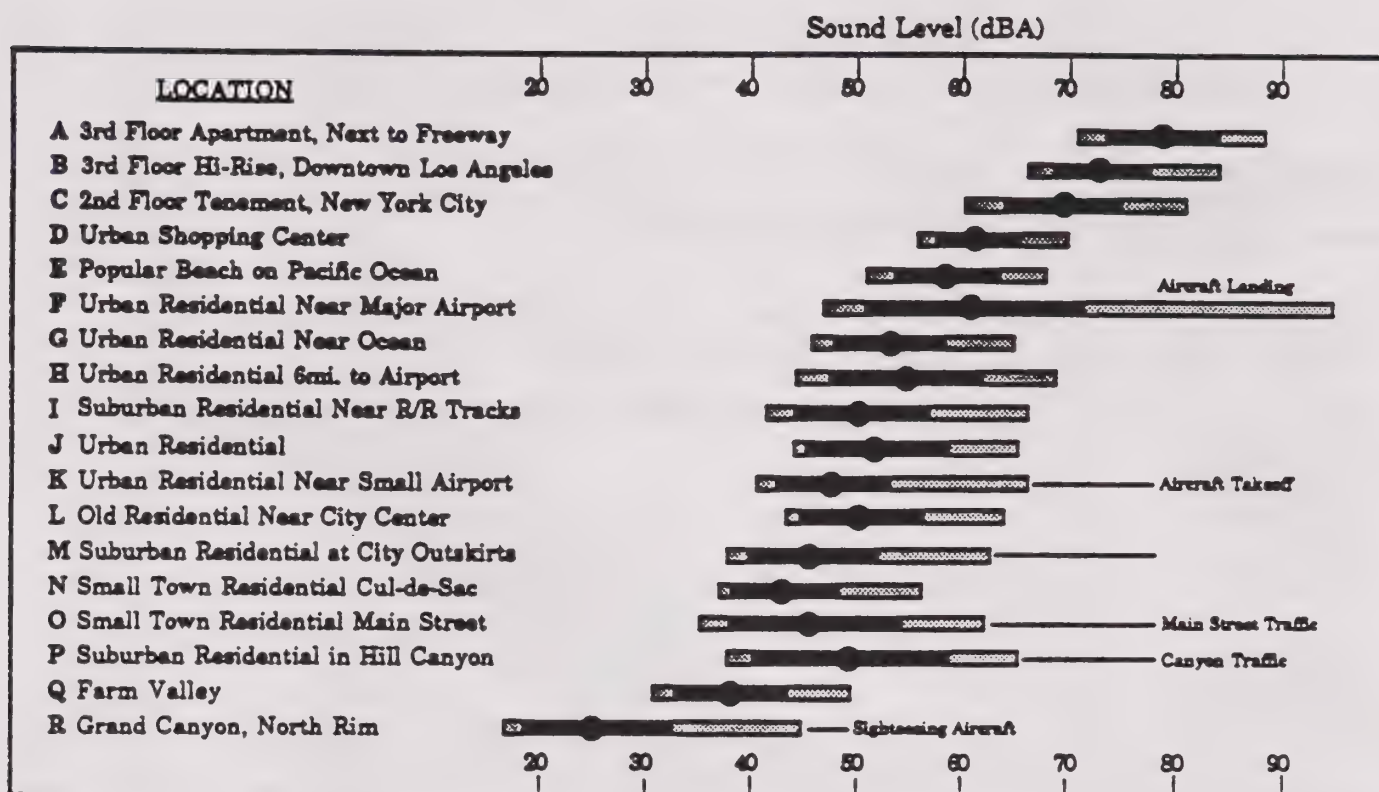


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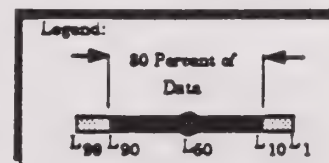
COMMUNITY REACTION



Source: Mestre Greve Associates



SOURCE: Community Noise, EPA, 1971



Daytime Outdoor Noise Levels

Fountain Valley

Figure 7-4

based upon cumulative noise criteria such as LEQ, LDN or CNEL.

The ENVIRONMENTAL PROTECTION AGENCY published in March 1974 a very important document entitled "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare With an Adequate Margin of Safety" (EPA550/9-74-004). Table 7-2 presents a table of land uses and requisite noise levels. In this table, 55 LDN is described as the requisite level with an adequate margin of safety for areas with outdoor uses, this includes residences, and recreational areas. The EPA "levels document" does not constitute a standard, specification, or regulation, but identifies safe levels of environmental noise exposure without consideration for economic cost for achieving these levels.

The FEDERAL HIGHWAY ADMINISTRATION (FHWA) has adopted and published noise abatement criteria for highway construction projects. The noise abatement criteria specified by the FHWA are presented in Table 7-3 in terms of the maximum one hour Noise Equivalent Level (LEQ). The FHWA noise abatement criteria basically establishes an exterior noise goal for residential land uses of 67 LEQ and an interior goal for residences of 52 LEQ. The noise abatement criteria applies to private yard areas and assumes that typical wood frame homes with windows open provide 10 dB noise reduction (outdoor to indoor) and 20 dB noise reduction with windows closed.

The STATE OF CALIFORNIA requires each City and County to adopt Noise Elements of their General Plans. Such Noise Elements must contain a Noise/Land Use compatibility matrix. A recommended (but not mandatory)

matrix is presented in the "Guidelines for the Preparation and Content of Noise Elements of the General Plan," (Office of Noise Control, California Department of Health, February 1976). Table 7-4 presents this recommended matrix.

The CITY OF FOUNTAIN VALLEY 1974 NOISE ELEMENT OF THE GENERAL PLAN contains specific guidelines for land use compatibility with community noise environments. These guidelines indicate acceptable and unacceptable noise levels for specific land uses. The County of Orange Noise/Land Use Compatibility Manual also includes exterior and interior noise standards adopted June 11, 1985. The City of Fountain Valley requires that residential outdoor areas not exceed 60 CNEL.

7.2.3 Methods of Measurement

The noise environment in Fountain Valley was assessed using a comprehensive noise measurement survey of existing noise sources and incorporating these results into computer noise models for future noise estimates.) The noise environment is commonly presented graphically in terms of lines of equal noise levels, or contours. The following paragraphs detail the methodology used in the above.

Measurement Procedure. Sensitive receptor sites were selected for measurement of the existing noise environment of Fountain Valley. A review of noise complaints and identification of major noise sources in the community provided the initial base for development of the community noise survey. The measurement locations were selected on the basis of proximity to major noise sources and noise sensitivity of the land use. The twelve measurement locations are depicted in Figure 7-5.

TABLE 7-1
Sound Levels and Loudness of Illustrative Noises
in Indoor and Outdoor Environments

db(A)	Over-All Level (Sound Pressure Level Approx 0.002 Microbar)	Community (Outdoor)	Home or Industry (Indoor)	Loudness (Human Judgement of Different Sound Levels)
130		Military Jet Aircraft Take-Off with After-Burner from Aircraft Carrier @ 50 Ft. (130)	Oxygen Torch (121)	120 dB(A) 32 Times As Loud
120	UNCOMFORTABLY LOUD	Turbo-Fan Aircraft @ Takeoff Power @ 200 Ft. (118)	Riveting Machine (110) Rock-N-Roll Band (108-114)	110 dB(A) 16 Times As Loud
110		Jet Flyover @ 1000 Ft. (103) Boeing 707, DC-8 @ 8080 Ft. Before Landing (97) Bell J-2A Helicopter @ 200 Ft. (100)		100 dB (A) 8 Times As Loud
100	VERY LOUD	Power Mower (98) Boeing 737, DC-9 @ 8080 Ft. Before Landing (97) Motorcycle @ 25 Ft. (90)	Newspaper Press (97)	90 dB (A) 4 Times As Loud
90		Car Wash @ 20 Ft. (83) Prop. Plane Flyover @ 1000 Ft. (88) Diesel Truck, 40 MPH @ 50 Ft. (84) Diesel Tractor, 45 MPH @ 100 Ft. (83)	Food Blender (88) Milling Machine (85) Garbage Disposal (80)	80 dB (A) 2 Times As Loud
80		High Urban Ambient Sound (80)** Passenger Car, 65 MPH @ 25 Ft. (77) Freeway @ 50 Ft. from Pavement Edge, 10 A.M. (76 ± 6)	Living Room Music (78) TV-Audio, Vacuum Cleaner (70)	70 dB (A)
70	MODERATELY LOUD		Cash Register @ 10 Ft. (65-70) Electric Typewriter @ 10 Ft. (64) Dishwasher (Rinse) @ 10 Ft. (60) Conversation (10)	60 dB (A) 1/2 As Loud
60		Air Conditioning Unit @ 100 Ft. (50)		
50	QUIET	Large Transformer @ 100 Ft. (50)		50 db (A) 1/4 As Loud
40		Bird Calls (44) Lower Limit Urban Ambient Sound (40)		40 dB (A) 1/8 As Loud
30	JUST AUDIBLE	{db(A) Scale Interrupted}		
10				
0	THRESHOLD OF HEARING			

SOURCE: Reproduced from Melville C. Branch and R. Dale Beland, "Outdoor Noise in the Metropolitan Environment. Published by the City of Los Angeles, 1970, p. 2.

** Urban Ambient Sound - includes noises typically found in an urban environment which may consist of the following: automobiles, animals, televisions, radios, lawnmowers, air conditioners, and other various appliances and machinery.

TABLE 7-2

ENVIRONMENTAL PROTECTION
AGENCY GUIDELINES

	Measure	Indoor Activity Interference	Hearing Loss Consideration	To Protect Against Both Effects (b)	Outdoor Activity Interference	Hearing Loss Consideration	To Protect Against Both Effects (b)
Residential with Outside Space and Farm Residences	Ldn	45		45	55		55
	Leq(24)		70			70	
Residential with No Outside Space	Ldn	45		45			
	Leq(24)		70				
Commercial	Leq(24)	(4)	70	70(c)	(4)	70	70(c)
Inside Transportation	Leq(24)	(4)	70	(4)			
Industrial	Leq(24)(4)	(4)	70	70(c)	(4)	70	70(c)
Hospitals	Ldn	45		45	55		55
	Leq(24)		70			70	
Educational	Ldn	45		45	55		55
	Leq(24)		70			70	
Recreational Areas	Leq(24)	(4)	70	70(c)	(4)	70	70(c)
Farm Land and General Unpopulated Land	Leq(24)				(4)	70	70(c)

Code:

- Since different types of activities appear to be associated with different levels, identification of a maximum level for activity interference may be difficult except in those circumstances where speech communication is a critical activity.
- Based on lowest level.
- Based only on hearing loss.
- An Leq(5) of 75 dB may be identified in those situations so long as the exposure over the remaining 16 hours a day is low enough to result in a negligible contribution to the 24-hour average, i.e., no greater than an Leq of 6 dB.

Note: Explanation of identified level for hearing loss: The exposure period which results in hearing loss at the identified level is a period of 40 years.

* Refers to energy rather than arithmetic averages.

SOURCE : EPA

TABLE 7-3
FHWA NOISE ABATEMENT CRITERIA

ACTIVITY CATEGORY	DESIGN NOISE LEVEL - LEQ	DESCRIPTION OF ACTIVITY CATEGORY
A	57 (Exterior)	Tracts of land in which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of open spaces, or historic districts which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas and parks which are not included in category A and residences, motels, hotels, public meeting rooms, schools, churches, libraries, and hospitals.
C	72 (Exterior)	Developed lands, properties, or activities not included in Category A or B above.
D	-	For requirements of undeveloped lands see FHWA PPM 773.
E	52 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: Federal Highway Administration

TABLE 7-4

STATE OF CALIFORNIA NOISE AND LAND USE COMPATIBILITY

Land Use Category	Community Noise Exposure Ldn or CNEL, dB					
	55	60	65	70	75	80
Residential - Low Density Single Family, Duplex, Mobile Homes						
Residential - Multiple Family						
Transient Lodging - Motels, Hotels						
Schools, Libraries, Churches Hospitals, Nursing Homes						
Auditoriums, Concert Halls, Amphitheatres						
Sports Arena, Outdoor Spectator Sports						
Playgrounds, Neighborhood Parks						
Golf Courses, Riding Stables Water Recreation, Cemeteries						
Office Buildings, Business Commercial and Residential						
Industrial, Manufacturing Utilities Agriculture						

Interpretation

Normally Acceptable

Specified Land Use is Satisfactory, Based Upon the Assumption that Any Buildings Involved are of Normal Conventional Construction, Without Any Special Noise Insulation Requirements.

Conditionally Acceptable

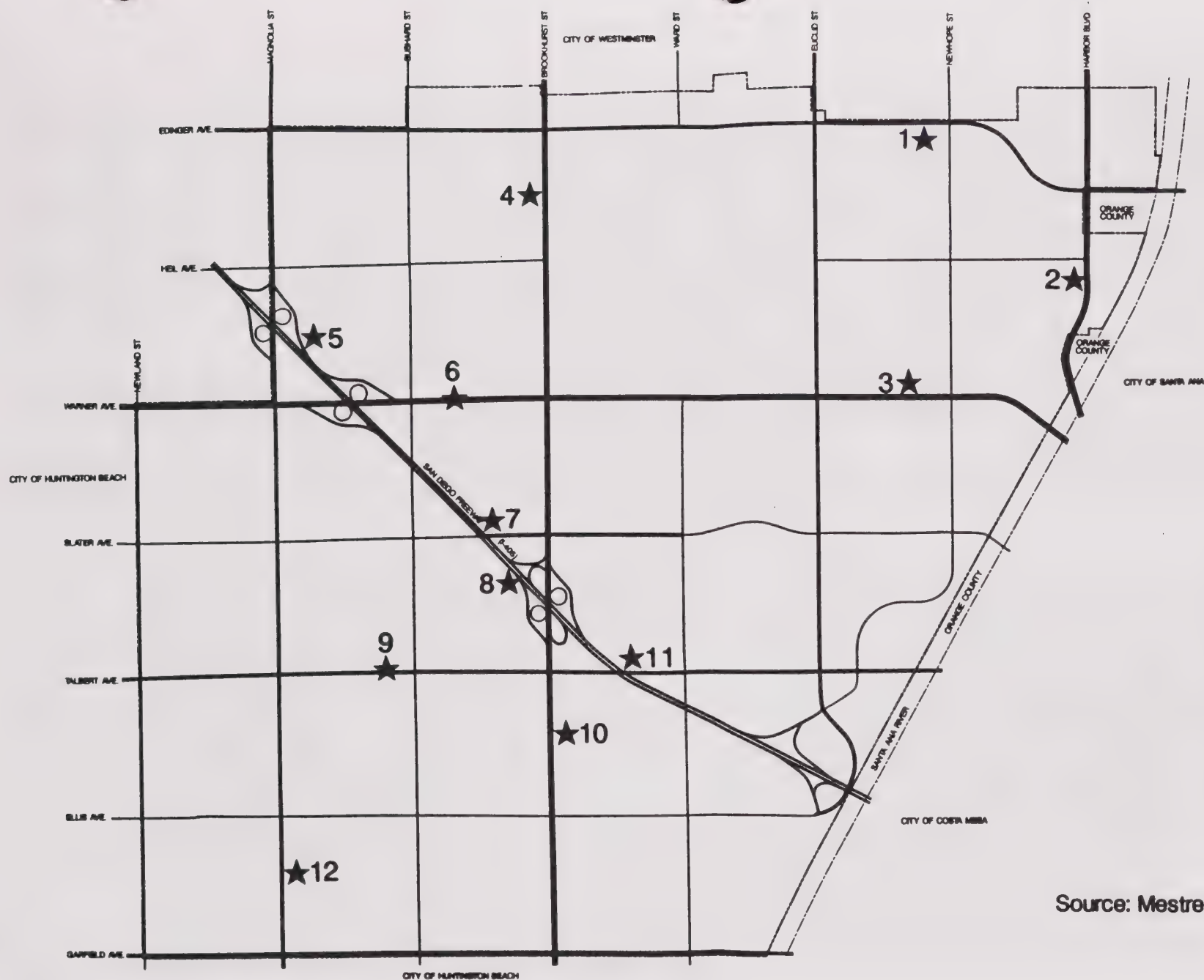
New Construction or Development Should be Undertaken Only After a Detailed Analysis of the Noise Reduction Requirement is Made and Needed Noise Insulation Features Included in the Design. Conventional Construction, but with Closed Windows and Fresh Air Supply Systems or Air Conditioning, Will Normally Suffice.

Normally Unacceptable

New Construction or Development Should Generally be Discouraged. If New Construction or Development Does Proceed, a Detailed Analysis of the Noise Reduction Requirements Must be Made and Needed Noise Insulation Features Included in the Design.

Clearly Unacceptable

New Construction or Development Should Generally not be Undertaken.



Source: Mestre Greve Associates

Noise Measurement Locations Fountain Valley—General Plan Update

Figure 7-5



The Fountain Valley Noise Element measurement survey utilized the Bruel & Kjaer 2231 automated digital noise data acquisition system for short-term (10 min.) LEQ readings. This instrument automatically calculates both the Equivalent Noise Level (LEQ) and Percent Noise Level (L%) for any specific time period. The noise monitor was equipped with a Bruel & Kjaer calibrator with calibrations traceable to the National Bureau of Standards. Calibration for the calibrators are certified through the duration of the measurements by Bruel & Kjaer. This measurement system satisfies the ANSI (American National Standards Institute) Standards 1.4 for Type 1 precision noise measurement instrumentation.

Based upon the identification of the major noise sources and the location of sensitive receptors, a noise measurement survey was conducted. The function of the survey is threefold. The first is to determine the existing noise levels at noise sensitive land uses. The second function is to provide empirical data for the correlation and calibration of the computer noise modeled environment. A third important aspect of the survey is to obtain an accurate description of the ambient noise levels in various communities throughout the City. Ambient traffic noise measurements at each site were designed to provide a "snapshot" indication of the traffic noise at the measurement site. (The noise contours based on the CNEL noise scale are perhaps a better indicator of the traffic noise at a given location.) The ambient traffic noise measurements were also used to provide an indication as to the validity of the FHWA traffic noise model used for the CNEL noise projections.

7.3 EXISTING ACOUSTIC ENVIRONMENT

This section contains a detailed description of the current noise environment within the City. This

description of the noise environment includes an identification of noise sources and noise sensitive land uses, a community noise measurement survey, and noise contour maps.

To define the noise exposure, this section of the report first identifies the major sources of noise in the community. The major noise sources in the City are from roadway traffic noise. The major traffic noise source in the City is Interstate 405 which runs through the City from southeast to northwest. In addition, the City contains a large number of arterials spread uniformly throughout the City. As mandated by the State, noise sensitive receptors include, but are not limited to, residential areas containing schools, hospitals, rest homes, long-term medical or mental care facilities, or any other land use areas deemed noise sensitive by the local jurisdiction.

7.3.1 Noise Sources and Levels

The predominant land use in the City is residential, and should also be considered the most noise sensitive. Other noise sensitive land uses include elementary schools, junior high schools, parks, a hospital and churches.

The City of Fountain Valley is almost fully developed, but it is still heavily used by vehicular traffic by all of the surrounding cities because of the I-405 that traverses through the City. This traffic use will result in increased traffic noise levels throughout the City. Maintenance of a moderately quiet ambience is important to maintaining the overall atmosphere of the area. The ambient noise levels for the City are lower in areas not adjacent to the I-405. Motor vehicle noise will continue to be significant even if each individual vehicle eventually meets state noise standards.

The majority of noise in Fountain Valley originates from motor vehicles. The I-405 is the major roadway noise source for the City. Other primary roadway noise sources include Brookhurst Street, Harbor Boulevard, Warner Avenue, Slater Avenue, Talbert Avenue and Euclid Street. Other arterials which were included in the traffic analysis for the City include Ellis Avenue, Garfield Avenue, Heil Avenue, Edinger Avenue, Magnolia Street, Bushard Street, Ward Street and Newhope Street. Other roadways in the City do not have sufficient traffic volumes to generate significant noise impacts, or were not included in the traffic analysis for the City.

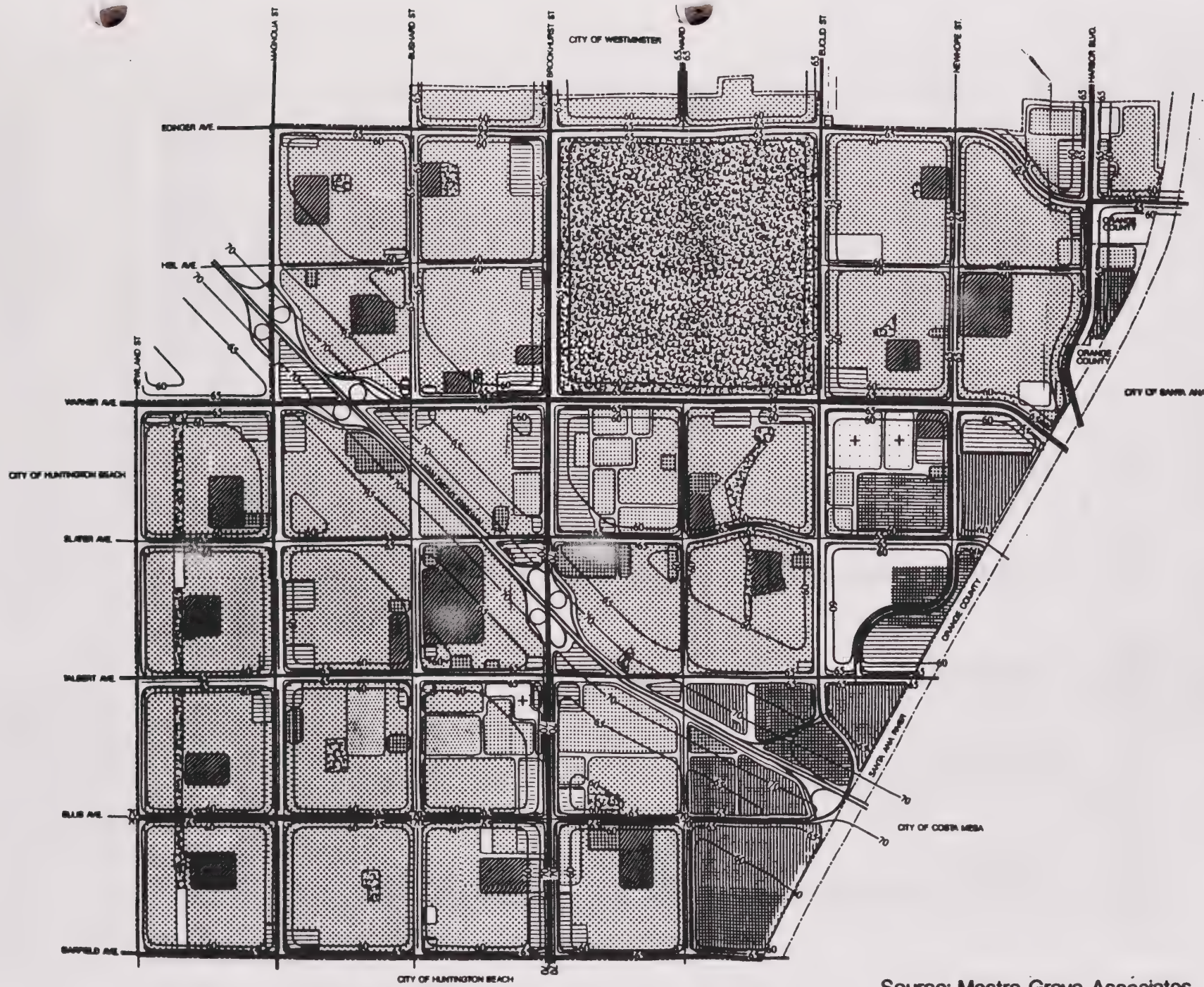
The noise environment for Fountain Valley can be described using noise contours developed for the major noise sources within the City. The major noise source impacting the City is traffic noise. Existing and future noise contour maps have been developed for the City as part of this element.

The traffic noise contours for existing conditions are presented in Figure 7-6 (This map is available for review at the City at 1" = 500' scale.) The 70 CNEL, 65 CNEL and 60 CNEL contours are shown on the map. The noise contours are also presented in tabular format in Table 7-5. These traffic noise levels were computed using the Highway Noise Model published by the Federal Highway Administration ("FHWA Highway Traffic Noise Prediction Model," FHWA-RD-77-108, December 1978). The FHWA Model uses traffic volume, vehicle mix, vehicle speed, and roadway geometry to compute the LEQ noise level. A computer code has been written which computes equivalent noise levels for each of the time periods used in CNEL. Weighting these noise levels and summing them results in the CNEL for the traffic projections used.

The traffic volumes used to project these noise levels were obtained from the "Fountain Valley General Plan Traffic Analysis", April 2, 1992 by Austin Foust Associates, Inc., Table 7-6 indicates truck mix data for Interstate 405 obtained from the "1988 Annual Average Daily Truck Traffic on The California State Highway System" prepared by the U.S. Department of Transportation in August of 1989. Truck mixes for all other arterials are shown in Table 7-7.

The existing noise contours in Table 7-5 and Figure 7-6 can be used with a Land/Use Compatibility Matrix to determine the compatibility of the existing land uses with the existing noise environment. Table 7-8 presents criteria used to assess the compatibility of the existing land uses with the existing noise environment. This land/use compatibility matrix was developed based on the City's current land/use compatibility guidelines from the current Noise Element of the City General Plan and the County's exterior and interior compatibility matrix. The new land/use compatibility matrix Table 7-8 mainly reflects the City guidelines for residential, mobile home, hotel, motel, as well as retail commercial, theater and restaurant land uses.

The existing noise contours (Figure 7-6) show that the noise levels from I-405 constitute a major noise corridor. Commercial and industrial land/uses in the vicinity of this noise corridor have a relatively high noise tolerance. According to the compatibility matrix the commercial and industrial land uses along this noise corridor experience unmitigated noise levels greater than 70 CNEL and are considered "normally compatible"; new construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the



Existing CNEL Noise Contours Fountain Valley—General Plan Update

Figure 7-6

TABLE 7-5

EXISTING TRAFFIC NOISE CONTOURS

Roadway		ADT (in 1000's)	SPEED MPH*	Distance to CNEL Contour (feet)		
				70 CNEL	65 CNEL	60 CNEL
I-405	North of Magnolia	248.0	55	426	918	1,979
	Magnolia to Brookhurst	247.0	55	425	916	1,973
	Brookhurst to Euclid	263.0	55	443	955	2,058
	South of Euclid	286.0	55	469	1,010	2,176
Edinger	Magnolia to Bushard	18.0	45	RW	99	214
	Bushard to Brookhurst	19.0	45	RW	103	222
	Brookhurst to Ward	22.0	45	53	114	245
	Ward to Euclid	21.0	45	51	110	237
	Euclid to Newhope	18.0	45	RW	99	214
	Newhope to Harbor	18.0	45	RW	99	214
	East of Harbor	19.0	45	RW	103	222
	Magnolia to Bushard	6.0	40	RW	RW	85
	Bushard to Brookhurst	5.0	40	RW	RW	75
Heil	Euclid to Newhope	4.0	40	RW	RW	65
	Newhope to Harbor	5.0	40	RW	RW	75
Warner	Newland to Magnolia	38.0	45	76	164	352
	Magnolia to Bushard	29.0	45	63	137	294
	Bushard to Brookhurst	31.0	45	66	143	308
	Brookhurst to Ward	34.0	45	70	152	327
	Ward to Euclid	28.0	45	62	133	288
	Euclid to Newhope	31.0	45	66	143	308
	Newhope to Harbor	27.0	45	60	130	281
	Newland to Magnolia	18.0	40	RW	82	176
	Magnolia to Bushard	17.0	40	RW	79	170
Slater	Bushard to Brookhurst	20.0	40	RW	88	189
	Brookhurst to Ward	25.0	40	RW	102	220
	Ward to Euclid	17.0	40	RW	79	170
	Euclid to Newhope	17.0	40	RW	79	170
	Newhope to Harbor	20.0	40	RW	88	189
	Newland to Magnolia	17.0	45	RW	96	206
	Magnolia to Bushard	22.0	45	53	114	245
Talbert	Bushard to Brookhurst	28.0	45	62	133	288
	Brookhurst to Ward	26.0	45	59	127	274
	Ward to Euclid	20.0	45	RW	107	230
	Euclid to Newhope	27.0	45	60	130	281

RW - contour falls on roadway right-of-way

ADT - Average Daily Traffic.

* Represents speed used with FHWA noise model and not necessarily posted speed limit.

Source: Mestres Greve Associates

TABLE 7-5
(continued)

EXISTING TRAFFIC NOISE CONTOURS

Roadway		ADT (in 1000's)	SPEED MPH*	Distance to CNEL Contour (feet)		
				70 CNEL	65 CNEL	60 CNEL
Ellis	Newland to Magnolia	17.0	40	RW	79	170
	Magnolia to Bushard	18.0	40	RW	82	176
	Bushard to Brookhurst	21.0	40	RW	91	196
	Brookhurst to Ward	22.0	40	RW	94	202
	Ward to Euclid	28.0	40	51	110	237
Garfield	Newland to Magnolia	15.0	45	RW	88	190
	Magnolia to Bushard	17.0	45	RW	96	206
	Bushard to Brookhurst	15.0	45	RW	88	190
	Brookhurst to Ward	9.0	45	RW	63	135
Newland	Garfield to Ellis	16.0	40	RW	76	163
	Ellis to Talbert	17.0	40	RW	79	170
	Talbert to Slater	16.0	40	RW	76	163
	Slater to Warner	17.0	40	RW	79	170
Magnolia	Garfield to Ellis	25.0	45	57	124	267
	Ellis to Talbert	28.0	45	62	133	288
	Talbert to Slater	28.0	45	62	133	288
	Slater to Warner	30.0	45	65	140	301
	Warner to Heil	28.0	45	62	133	288
	Heil to Edinger	30.0	45	65	140	301
Bushard	Garfield to Ellis	18.0	40	RW	82	176
	Ellis to Talbert	19.0	40	RW	85	183
	Talbert to Slater	16.0	40	RW	76	163
	Slater to Warner	18.0	40	RW	82	176
	Warner to Heil	18.0	40	RW	82	176
	Heil to Edinger	14.0	40	RW	69	149
Brookhurst	Garfield to Ellis	49.0	45	90	194	418
	Ellis to Talbert	50.0	45	91	196	423
	Talbert to Slater	54.0	45	96	207	446
	Slater to Warner	42.0	45	81	175	377
	Warner to Heil	41.0	45	80	172	371
	Heil to Edinger	39.0	45	77	166	359
	Edinger to MacFadden	35.0	45	72	155	334
	Garfield to Ellis	15.0	45	RW	88	190
Ward	Ellis to Talbert	10.0	40	RW	55	119
	Talbert to Slater	11.0	40	RW	59	127
	Slater to Warner	6.0	40	RW	RW	85
	Edinger to McFadden	7.0	40	RW	RW	94

RW - contour falls on roadway right-of-way

ADT - Average Daily Traffic.

* Represents speed used with FHWA noise model and not necessarily posted speed limit.

TABLE 7-5
(continued)

EXISTING TRAFFIC NOISE CONTOURS

Roadway		ADT (in 1000's)	SPEED MPH*	Distance to CNEL Contour (feet)		
				70 CNEL	65 CNEL	60 CNEL
Euclid	Ellis to Talbert	31.0	45	66	143	308
	Talbert to Slater	27.0	45	60	130	281
	Slater to Warner	26.0	45	59	127	274
	Warner to Heil	33.0	45	69	149	321
	Heil to Edinger	31.0	45	66	143	308
	Edinger to McFadden	28.0	45	62	133	288
Newhope	MacArthur to Slater	9.0	40	RW	52	111
	Slater to Warner	20.0	40	RW	88	189
	Warner to Heil	19.0	40	RW	85	183
	Heil to Edinger	20.0	40	RW	88	189
Harbor	Warner to Edinger	39.0	45	77	166	359
	Edinger to McFadden	39.0	45	77	166	359

RW - contour falls on roadway right-of-way

ADT - Average Daily Traffic.

* Represents speed used with FHWA noise model and not necessarily posted speed limit.

Source: Mestres Greve Associates

TABLE 7-6
TRUCK MIX DATA FOR MAJOR NOISE SOURCES

ROADWAY	% Medium Trucks	% Heavy Trucks
I-405	4.3	28

The traffic distribution used in the arterial roadway CNEL calculations are presented below in Table 7-7. These traffic distribution estimates are based upon traffic surveys, and are considered typical for residential roadways in California.

TABLE 7-7
TRAFFIC DISTRIBUTION PER TIME OF DAY
IN PERCENT OF ADT FOR ARTERIALS

VEHICLE TYPE	PERCENT OF ADT DAY	EVENING	NIGHT
Automobile	75.51	12.57	9.34
Medium Truck	1.56	0.09	0.19
Heavy Truck	0.64	0.02	0.08

Existing noise contours for the City were generated using the above input data with the FHWA computer noise model. The results are shown in Table 7-5 Figure 7-6 and do not account for barrier effects due to intervening topography such as berms or existing noise barriers along the roadways.

TABLE 7-8
NOISE/LAND USE COMPATIBILITY MATRIX

LAND USE CATEGORIES		COMMUNITY NOISE EQUIVALENT LEVEL CNEL					
CATEGORIES	USES	<55	<60	<65	<70	<75	<80
RESIDENTIAL	Single Family, Duplex Multiple Family	A	A	B	C	C	D
RESIDENTIAL	Mobile Homes	A	A	B	C	D	D
COMMERCIAL Regional, District	Hotel, Motel, Transient Lodging	A	A	A	B	C	D
COMMERCIAL Regional Village District, Special	Commercial Retail, Bank Restaurant, Movie Theatre	A	A	B	B	C	D
COMMERCIAL INDUSTRIAL INSTITUTIONAL	Office Building, Research and Development, Professional Office City Office Building	A	A	B	B	C	D
COMMERCIAL Recreation INSTITUTIONAL Civic Center	Amphitheatre, Concert Hall Auditorium, Meeting Hall	A	B	C	C	D	D
COMMERCIAL Recreation	Children's Amusement Park, Miniature Golf Course, Go-cart Track Equestrian Center, Sports Club	A	A	B	B	C	D
COMMERCIAL General, Special INDUSTRIAL, INSTITUTIONAL	Automobile Service Station, Auto Dealership, Manufacturing, Warehousing Wholesale, Utilities	A	A	A	B	B	C
INSTITUTIONAL General	Hospital, Church, Library Schools/ Classroom	A	B	C	C	C	D
OPEN SPACE	Parks	A	A	B	C	C	D
OPEN SPACE	Golf Course, Camaserves, Nature Centers Wildlife Reserves, Wildlife Habitat	A	A	B	B	C	D
AGRICULTURE	Agriculture	A	A	A	A	A	B

INTERPRETATION**ZONE A
CLEARLY COMPATIBLE**

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

**ZONE B
NORMALLY COMPATIBLE**

New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.

**ZONE C
NORMALLY INCOMPATIBLE**

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

**ZONE D
CLEARLY INCOMPATIBLE**

New construction or development should generally not be undertaken.

design are determined. Conventional construction with closed windows and fresh air supply systems or air conditioning, will normally suffice. Other industrial or commercial land uses in the City are exposed to worst case noise levels in excess of 65 CNEL which is "normally compatible" according to the compatibility matrix.

Residences currently exist along much of the I-405 and are exposed to traffic noise from this major noise corridor. The traffic noise contours in Figure 7-6 and the data in Table 7.5 indicate that without considering the existing sound walls, the residences along I-405 are exposed to worst case unmitigated noise levels just less than 75 CNEL. However, a comparison of calibrated modeled levels and the measured noise levels along the freeway indicate that the existing sound wall provides a noise reduction ranging from 8 dB to 16 dB depending on the wall height and location along I-405. Therefore, the residences along the I-405 experience mitigated noise levels ranging from just less than 60 CNEL to just less than 70 CNEL with the existing freeway sound wall. The compatibility matrix indicates that residences experiencing noise levels less than 60 CNEL are considered "clearly compatible." The land/use compatibility matrix defines "clearly compatible" as "Specified land use is satisfactory based upon the assumption that buildings involved are of normal conventional construction without any special noise insulation requirements." According to the compatibility matrix residential land uses experiencing noise levels between 60 and 65 CNEL are considered "normally compatible" as defined earlier those existing residences experiencing mitigated traffic noise levels just less than 70 CNEL are considered "normally incompatible"; New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise

reduction requirements must be made and needed noise insulation features included in the design.

Existing residences experience traffic noise from all of the major arterials which traverse the City. The traffic noise contours shown in Figure 7-6 indicate that the existing residences along Garfield Avenue, Ellis Avenue, Talbert Avenue, Slater Avenue, Warner Avenue, Edinger Avenue, Magnolia Street, Bushard Street, Brookhurst Street, Ward Street, Euclid Street, Newhope Street and Harbor Boulevard experience unmitigated traffic noise levels in excess of 65 CNEL, which is considered "normally incompatible" according to the compatibility matrix. Residences located along Heil Avenue experience traffic noise levels greater than 60 CNEL which is considered "normally compatible". Existing residences which are not located directly adjacent to these roadways will experience traffic noise levels less than 60 CNEL which is considered "clearly compatible".

The existing mobile homes located along Talbert Avenue experience traffic noise levels just greater than 65 CNEL. According to the compatibility matrix in Table 7-8 mobile home land uses experiencing noise levels in just greater than 65 CNEL are considered "normally incompatible". The existing mobile homes located along Bushard Street experience traffic noise levels just less than 65 CNEL which is considered "normally compatible".

Hospital land uses located at the corner of Warner Avenue and Euclid Street, and at the corner of Talbert Avenue and Brookhurst Street experience worst case traffic noise levels greater than 65 CNEL. The compatibility matrix indicates that hospital land uses experience traffic noise levels greater than 65 CNEL and are considered

"normally incompatible".

Existing school land uses throughout the City are generally located away from I-405, except for Fountain Valley High School and the McDowell Elementary School. This high school and elementary school experience worst case traffic noise levels in excess of 70 CNEL, which is considered "normally incompatible." Existing schools located along Newhope Street, between Slater Avenue and Edinger Avenue, and along Slater Avenue, Bushard Street and Ellis Avenue generally experience worst case traffic noise levels ranging between 60 and 65 CNEL. The compatibility matrix indicates that school land uses exposed to noise levels in excess of 60 CNEL are considered "normally incompatible." All other school land uses in the City are set back from roadways and experience traffic noise levels less than 60 CNEL, which is considered "clearly acceptable."

The parks in the City generally experience traffic noise levels ranging from less than 60 CNEL to 65 CNEL, except for Mile Square Park and along I-405. Mile Square Park experiences worst case traffic noise levels in excess of 65 CNEL which is considered "normally incompatible." However, most of the area within Mile Square Park is located outside the 60 CNEL and is considered "clearly compatible" according to the compatibility matrix. Los Alamos Park, which is adjacent to the I-405, experiences traffic noise levels in excess of 70 CNEL and is considered "normally incompatible." Most other parks throughout the City experience worst case traffic noise levels between 60 and 65 CNEL and are considered "normally compatible" as indicated in the compatibility matrix. Those parks which are set back from major roadways in the City experience traffic noise levels less than 60 CNEL and are considered "clearly compatible."

Most of the existing churches throughout the City are located along major arterials and experience worst case traffic noise levels greater than 65 CNEL which is considered "normally incompatible." Figure 7-6 indicates that two existing church sites are located adjacent to I-405 and experience unmitigated traffic noise levels in excess of 70 CNEL, which is considered "normally incompatible."

It appears that 60 CNEL is a reasonable noise standard for future outdoor living areas for two main reasons. The first is that City is almost fully developed and traffic noise along most of the roadways is not expected to increase significantly. Secondly, this 60 CNEL standard is consistent with the existing compatibility guidelines for the City and would help maintain the overall moderately quiet ambient noise level for the City. A reasonable indoor noise standard is 45 CNEL which is consistent with the State indoor residential standards. Therefore these standards are consistent with current guidelines for the City of Fountain Valley and are a reasonable long term goal for existing residential areas considering the limited amount of future development proposed for the City.

7.3.2 Noise Sensitive Land Uses

The most noise sensitive land use in Fountain Valley is residential development. It is considered especially noise sensitive because (1) considerable time is spent by individuals at home,, (2) significant activities occur outdoors and (3) sleep disturbance is most likely to occur in a residential area. Additionally, the City of Fountain Valley has a number of public educational facilities, hospital and parks that are considered noise sensitive. These facilities are generally spread evenly throughout the City.

Noise contours represent lines of equal noise exposure, just as the contour lines on a topographic map are lines of equal elevation. The contour lines shown in Figure 7-6 are the 60, 65 to 70 CNEL traffic noise contours. The noise contours along with Table 7-8 should be used as a guide for land use planning. The 55 CNEL contour defines the Noise Referral Zone. This is the noise level for which noise considerations should be included when making land use policy decisions. The 60 CNEL contour describes the areas for which new noise sensitive developments will be permitted only if appropriate mitigation measures are included such that the standards contained in the Noise Element are achieved.

7.4 FUTURE ACOUSTIC ENVIRONMENT

7.4.1 Noise Sources and Levels

Future traffic noise levels were computed using the FHWA Highway Traffic Noise Prediction Model with projected traffic volumes from the Fountain Valley General Plan Traffic Analysis by Austin Foust Associates, June 2, 1992. Table 7-9A shows the future buildout traffic noise contour data along the I-405 and the City's major arterials that are projected for future buildout of the proposed general plan, without the extension of Newhope Street from Talbert to Euclid. For future buildout conditions with the Newhope extension noise contour distances are shown in Table 7-9B, but only for those roadway segments where traffic noise will be significantly different from the "without Newhope extension" scenario.

Land use compatibility was assessed by comparing future traffic noise levels represented in Table 7-9A and 7-9B and Figure 7-7 with the land/use compatibility matrix presented in Table 7-8. This land/use compatibility matrix indicates acceptable limits of noise recommended for the City. The following discussion applies to future

conditions with or without the Newhope extension unless stated otherwise.

Based on future traffic levels shown in Figure 7-7 the areas of the City that will experience future traffic noise levels up to 75 CNEL are along I-405. In general land uses along other major roadways throughout the City will experience worst case traffic noise levels up to 70 CNEL. Areas along other principal arterials in the City will generally experience worst case future traffic noise levels ranging from 60 to 65 CNEL.

The future noise contours (Figure 7-7) show that the noise levels from I-405 constitute a major noise corridor. Commercial and industrial land/uses have a relatively high noise tolerance. According to the compatibility matrix the commercial and industrial land uses along this noise corridor experience unmitigated noise levels up to 75 CNEL and are considered "normally compatible"; new construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction with closed windows and fresh air supply systems or air conditioning, will normally suffice. Other industrial or commercial land uses will be located along major roadways throughout the City and are exposed to worst case noise levels up to 70 CNEL which is "normally compatible" according to the compatibility matrix. Figure 7-7 indicates that the above results will apply for future conditions with or without the Newhope Street extension. However, for future conditions with the Newhope extension, the commercial manufacturing land use adjacent to the extended portion of Newhope Street will experience traffic noise levels up to 70 CNEL which is considered "normally compatible" according to the compatibility matrix.

TABLE 7-9A

FUTURE TRAFFIC NOISE CONTOURS
(Without the Newhope Extension from
Talbert Avenue to Euclid Street)

Roadway		ADT	SPEED	Distance to CNEL Contour (feet)		
		(in 1000's)	MPH*	70 CNEL	65 CNEL	60 CNEL
I-405	North of Magnolia	323.0	55	508	1,095	2,360
	Magnolia to Brookhurst	317.0	55	502	1,082	2,330
	Brookhurst to Euclid	335.0	55	521	1,122	2,418
	South of Euclid	360.0	55	546	1,177	2,537
Edinger	Magnolia to Bushard	23.0	45	54	117	252
	Bushard to Brookhurst	25.0	45	57	124	267
	Brookhurst to Ward	31.0	45	66	143	308
	Ward to Euclid	30.0	45	65	140	301
	Euclid to Newhope	28.0	45	62	133	288
	Newhope to Harbor	27.0	45	60	130	281
	East of Harbor	27.0	45	60	130	281
	Magnolia to Bushard	16.0	40	RW	76	163
	Bushard to Brookhurst	12.0	40	RW	62	135
Heil	Euclid to Newhope	7.0	40	RW	RW	94
	Newhope to Harbor	10.0	40	RW	55	119
Warner	Newland to Magnolia	41.0	45	80	172	371
	Magnolia to I-405	33.0	45	69	149	321
	I-405 to Bushard	51.0	45	92	199	429
	Bushard to Brookhurst	43.0	45	82	178	383
	Brookhurst to Ward	51.0	45	92	199	429
	Ward to Euclid	43.0	45	82	178	383
	Euclid to Newhope	45.0	45	85	183	395
	Newhope to Harbor	38.0	45	76	164	352
Slater	Newland to Magnolia	20.0	40	RW	88	189
	Magnolia to Bushard	22.0	40	RW	94	202
	Bushard to Brookhurst	25.0	40	RW	102	220
	Brookhurst to Ward	33.0	40	57	123	264
	Ward to Euclid	23.0	40	RW	96	208
	Euclid to Newhope	23.0	40	RW	96	208
	Newhope to Harbor	25.0	40	RW	102	220
Talbert	Newland to Magnolia	23.0	45	54	117	252
	Magnolia to Bushard	27.0	45	60	130	281
	Bushard to Brookhurst	33.0	45	69	149	321
	Brookhurst to I-405	35.0	45	72	155	334
	I-405 to Ward	24.0	45	56	120	259
	Ward to Euclid	29.0	45	63	137	294
	Euclid to Newhope	42.0	45	81	175	377
	Newhope to Harbor	41.0	45	80	172	371

RW - contour falls on roadway right-of-way

ADT - Average Daily Traffic.

* Represents speed used with FHWA noise model and not necessarily posted speed limit.

TABLE 7-9A
(Continued)

FUTURE TRAFFIC NOISE CONTOURS
(Without the Newhope Extension from
Talbert Avenue to Euclid Street)

Roadway		ADT (in 1000's)	SPEED MPH*	Distance to CNEL Contour (feet)		
				70 CNEL	65 CNEL	60 CNEL
Ellis	Newland to Magnolia	22.0	40	RW	94	202
	Magnolia to Bushard	23.0	40	RW	96	208
	Bushard to Brookhurst	27.0	40	RW	107	231
	Brookhurst to Ward	26.0	40	RW	105	225
	Ward to Euclid	31.0	40	55	118	254
Garfield	Newland to Magnolia	22.0	45	53	114	245
	Magnolia to Bushard	24.0	45	56	120	259
	Bushard to Brookhurst	22.0	45	53	114	245
	Brookhurst to Ward	19.0	45	RW	103	222
	East of Ward	12.0	45	RW	76	163
Newland	Garfield to Ellis	20.0	40	RW	88	189
	Ellis to Talbert	20.0	40	RW	88	189
	Talbert to Slater	19.0	40	RW	85	183
	Slater to Warner	20.0	40	RW	88	189
Magnolia	Garfield to Ellis	28.0	45	62	133	288
	Ellis to Talbert	30.0	45	65	140	301
	Talbert to Slater	32.0	45	68	146	314
	Slater to Warner	31.0	45	66	143	308
	Warner to I-405	31.0	45	66	143	308
	I-405 to Heil	33.0	45	69	149	321
	Heil to Edinger	32.0	45	68	146	314
	Garfield to Ellis	26.0	40	RW	105	225
Bushard	Ellis to Talbert	25.0	40	RW	102	220
	Talbert to Slater	24.0	40	RW	99	214
	Slater to Warner	27.0	40	RW	107	231
	Warner to Heil	25.0	40	RW	102	220
	Heil to Edinger	21.0	40	RW	91	196
Brookhurst	Garfield to Ellis	53.0	45	95	204	440
	Ellis to Talbert	54.0	45	96	207	446
	Talbert to I-405	61.0	45	104	224	483
	I-405 to Slater	67.0	45	111	239	514
	Slater to Warner	51.0	45	92	199	429
	Warner to Heil	52.0	45	94	202	434
	Heil to Edinger	48.0	45	89	191	412
	Edinger to MacFadden	43.0	45	82	178	383
Ward	Garfield to Ellis	21.0	45	51	110	237
	Ellis to Talbert	17.0	40	RW	79	170
	Talbert to Slater	18.0	40	RW	82	176
	Slater to Warner	10.0	40	RW	55	119
	Edinger to MacFadden	10.0	40	RW	55	119

RW - contour falls on roadway right-of-way

ADT - Average Daily Traffic.

* Represents speed used with FHWA noise model and not necessarily posted speed limit.

TABLE 7-9A
(Continued)

FUTURE TRAFFIC NOISE CONTOURS
(Without the Newhope Extension from
Talbert Avenue to Euclid Street)

Roadway		ADT (in 1000's)	SPEED MPH*	Distance to CNEL Contour (feet)		
				70 CNEL	65 CNEL	60 CNEL
Euclid	Ellis to I-405 on-ramp	36.0	45	73	158	340
	I-405 on-ramp to Talbert	47.0	45	87	188	406
	Talbert to Slater	36.0	45	73	158	340
	Slater to Warner	31.0	45	66	143	308
	Warner to Heil	38.0	45	76	164	352
	Heil to Edinger	37.0	45	75	161	346
	Edinger to McFadden	35.0	45	72	155	334
Newhope	MacArthur to Slater	15.0	40	RW	73	156
	Slater to Warner	28.0	40	51	110	237
	Warner to Heil	25.0	40	RW	102	220
	Heil to Edinger	25.0	40	RW	102	220
Harbor	Warner to Heil	56.0	45	98	212	456
	Heil to Edinger	54.0	45	96	207	446
	Edinger to McFadden	48.0	45	89	191	412

RW - contour falls on roadway right-of-way

ADT - Average Daily Traffic.

* Represents speed used with FHWA noise model and not necessarily posted speed limit.

TABLE 7-9B

FUTURE TRAFFIC NOISE CONTOURS
(With the Newhope Extension from
Talbert Avenue to Euclid Street)

Roadway		ADT (in 1000's)	SPEED MPH*	Distance to CNEL Contour (feet)		
				70 CNEL	65 CNEL	60 CNEL
Slater	Euclid to Magnolia	19.0	40	39	85	183
Talbert	I-405 to Ward	22.0	45	53	114	245
	Ward to Euclid	27.0	45	60	130	281
	Euclid to Newhope	27.0	45	60	130	281
Euclid	I-405 on-ramp to Talbert	25.0	45	57	124	267
	Talbert to Slater	31.0	45	66	143	308
Newhope	I-405 to MacArthur	24.0	40	46	99	214
	MacArthur to Slater	21.0	40	42	91	196

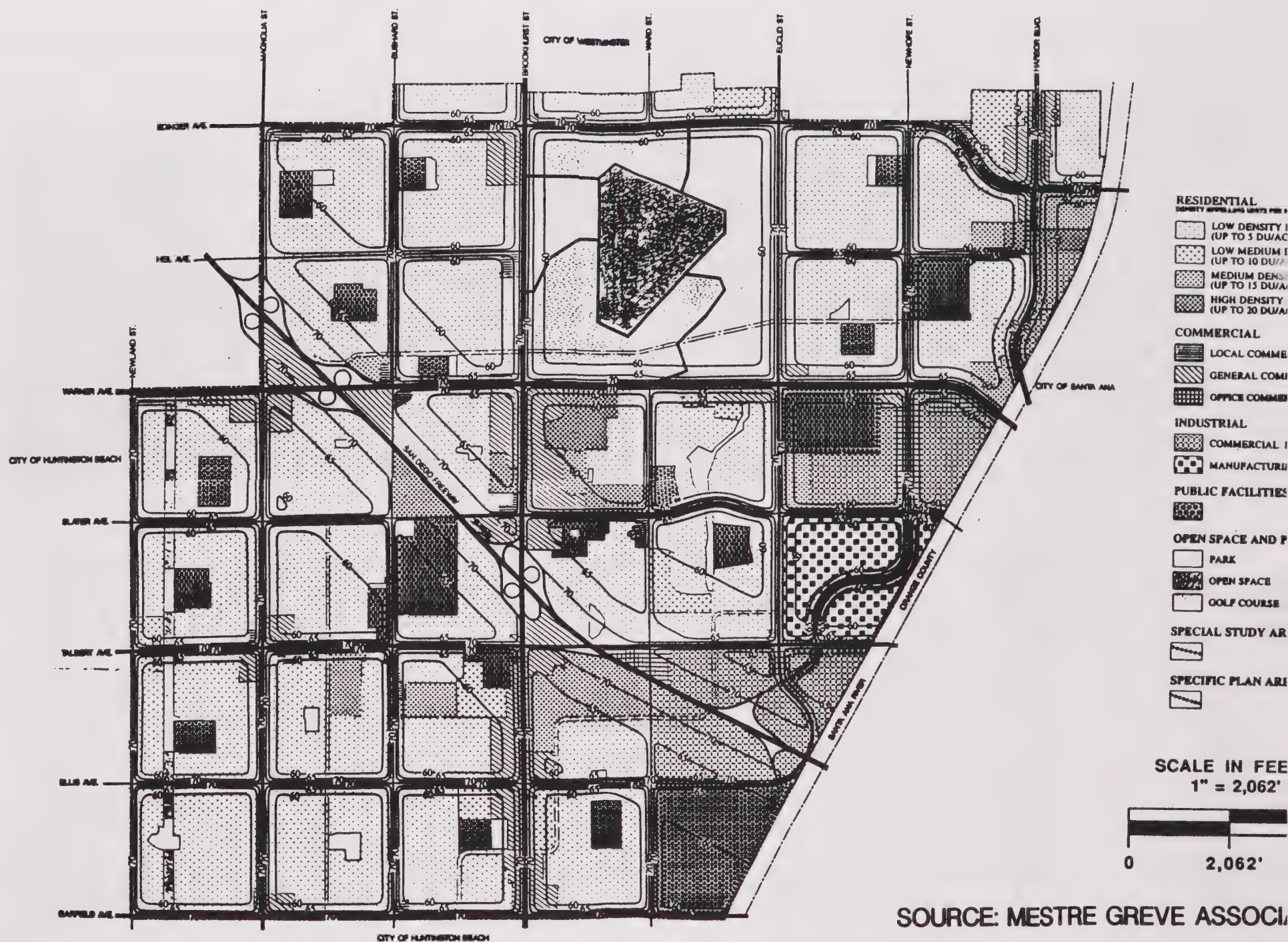
NOTE: These roadway segments will generate noise levels significantly different from future the "without the Newhope extension" scenario)

RW - Contour falls inside the roadway right-of-way.

* Represents speed used with FHWA noise model and not necessarily posted speed limit.

FUTURE TRAFFIC NOISE CONTOUR W/O OR W/ NEWHOPE EXTENSION*
 •(if dashed line is also shown then
 solid line only represents "w/o Newhope extension")

FUTURE TRAFFIC NOISE CONTOUR WITH NEWHOPE EXTENSION



Future CNEL Noise Contours Fountain Valley—General Plan Update

Figure 7-7

Residences are planned along much of the I-405 and are exposed to traffic noise from this major noise corridor. The traffic noise contours in Figure 7-7 and the data in Table 7-9A indicate that without considering the existing sound walls, the residences along I-405 are exposed to worst case unmitigated noise levels up to 75 CNEL. However, as mentioned earlier the existing sound wall provides a noise reduction ranging from 8 dB to 16 dB depending on the wall height and location along I-405. Therefore, the residences along the I-405 experience mitigated noise levels ranging from just less than 60 CNEL to just below 70 CNEL with the existing freeway sound wall. The compatibility matrix indicates that residences experiencing noise levels less than 60 CNEL are considered "clearly compatible." The land/use compatibility matrix defines "clearly compatible" as "Specified land use is satisfactory based upon the assumption that buildings involved are of normal conventional construction without any special noise insulation requirements." According to the compatibility matrix residential land uses experiencing noise levels between 60 and 65 CNEL are considered "normally compatible" as defined earlier. Those future residences experience mitigated traffic noise levels just less than 70 CNEL are considered "normally incompatible"; New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Future residences experience traffic noise from all of the major arterials which traverse the City. The traffic noise contours shown in Figure 7-7

indicate that the existing residences along Garfield Avenue, Ellis Avenue, Talbert Avenue, Slater Avenue, Warner Avenue, Edinger Avenue, Magnolia Street, Bushard Street, Brookhurst Street, Ward Street, Euclid Street, Newhope Street and Harbor Boulevard experience unmitigated traffic noise levels up to 70 CNEL, which is considered "normally incompatible" according to the compatibility matrix.

Residences located along Heil Avenue experience traffic noise levels up to 65 CNEL which is considered "normally compatible". Residences which are not located directly adjacent to these roadways will generally experience traffic noise levels less than 60 CNEL and are considered "clearly acceptable".

The City General Plan includes a number of public facility land uses as seen in Figure 7-7. According to the City a number of public facility land uses, including existing school sites, will be converted to residential land uses. The Harper Elementary School, for example, which is located near Ellis Avenue and Newland Street will be converted to residences. Another example is the Lighthouse Maintenance Facility which will be converted to town homes. The McDowell Elementary School is presently used for administrative offices but may be considered in the future for residential uses. The compatibility of these land uses was included in the above compatibility discussion regarding residential land uses. Noise land/use compatibility for other public facility land use areas will depend upon the type of public facility, and should be addressed in a future EIR for each specific facility.

School sites throughout the City are generally located away from I-405, except for Fountain Valley High School and the McDowell Elementary School. However, as mentioned above, the McDowell Elementary School will eventually be converted to a residential

land use. The Fountain Valley High School will experience worst case traffic noise levels up to 75 CNEL, which is considered "normally incompatible." Schools located along Newhope Street, between Slater Avenue and Edinger Avenue, and along Slater Avenue, Bushard Street and Ellis Avenue generally will experience worst case traffic noise levels ranging between just above 60 and to greater than 65 CNEL. The compatibility matrix indicates that school land uses exposed to noise levels in excess of 60 CNEL are considered "normally incompatible." All other school land uses in the City are set back from roadways and experience traffic noise levels less than 60 CNEL, and will be considered "clearly compatible."

The parks in the City generally will experience traffic noise levels ranging from less than 60 CNEL to greater than 65 CNEL, except for Mile Square Park and along I-405. Mile Square Park will experience worst case traffic noise levels in excess of 65 CNEL which is considered "normally incompatible." However, most of the area within Mile Square Park will be located outside the 60 CNEL which is considered "clearly compatible" according to the compatibility matrix. Los Alamos Park, which is adjacent to the I-405, will experience traffic noise levels in up to 75 CNEL and is considered "normally incompatible." Most other parks throughout the City will experience worst case traffic noise levels greater than 65 CNEL and are considered "normally incompatible" as indicated in the compatibility matrix. Those parks which will be set back from major roadways in the City will experience traffic noise levels less than 60 CNEL and are considered "clearly compatible."

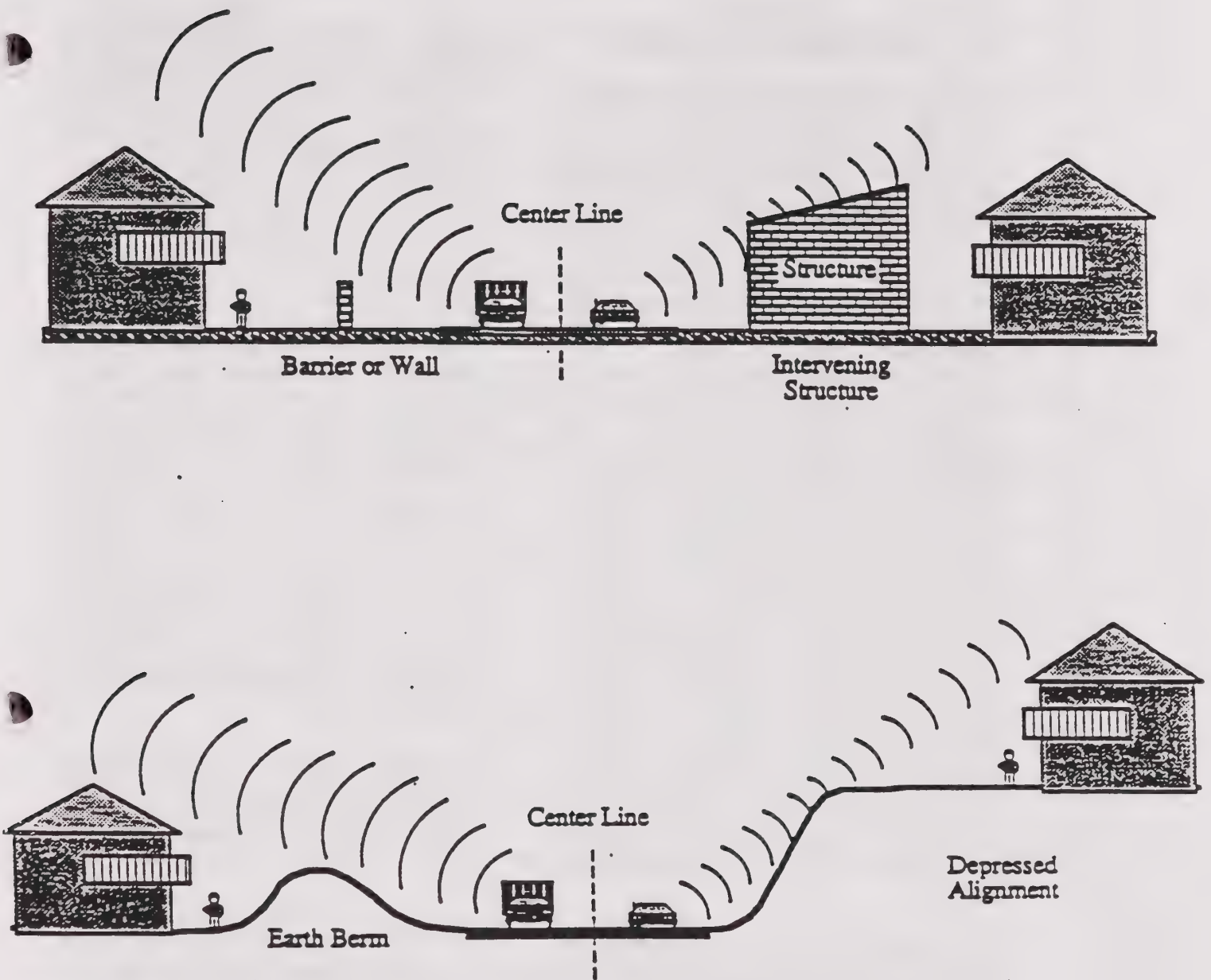
Most of the existing churches throughout the City are located along major arterials and will experience worst case traffic noise levels up to 70 CNEL which is considered "normally

incompatible." Figure 7-7 indicates that two existing church sites located adjacent to I-405 will experience unmitigated traffic noise levels in up to 75 CNEL, which is considered "normally incompatible."

7.4.2 Mitigation Measures

The noise sources in Fountain Valley consist mainly of transportation related noise. A local government has little direct control of transportation noise at the source. State and Federal agencies have the responsibility to control the noise from the source, such as vehicle noise emission levels. The most effective method the City has to mitigate transportation noise is through reducing the impact of the noise onto the community (i.e. noise barriers and site design review). Mitigation through the design and construction of a noise barrier (wall, berm, or combination wall/berm) is the most common way of alleviating traffic noise impacts (Figure 7-8). The effect of a noise barrier is critically dependent on the geometry between the noise source and the receiver. A noise barrier effect occurs when the "line of sight" between the source and receiver is penetrated by the barrier. The greater the penetration the greater the noise reduction.

Another common approach to mitigation noise impacts is through the use of setbacks which prevent the "walled in" look. The setback approach simply requires that homes or noise sensitive uses be setback away from the roadway at a distance great enough so that they are outside the noise impact zone. The setback area is landscaped. The landscaping actually provides very little noise reduction, however, residents seem to become less aware of the noise probably because they can not see or have an obstructed view of the road.



Examples of Noise Barrier Effects
Fountain Valley

Figure 7-8

7.4.3 Noise/Land Use Compatibility

Noise concerns should be incorporated into land use planning to reduce future noise and land use incompatibility. This is achieved by establishing standards and criteria that specify acceptable limits of noise for various land uses throughout the City. These criteria are designed to integrate noise considerations into land use planning to prevent noise/land use conflicts. The noise/land use compatibility matrix presented in Table 7-8 and mentioned previously is used to assess the compatibility of proposed land uses with the noise environment. This matrix is also the basis for the development of specific Noise Standards. The proposed standards, presented in Figure 7-9, represent City policies related to land uses and acceptable noise levels. These tables are the primary tools which allow the City to ensure integrated planning for compatibility between land uses and outdoor noise. The most effective method to control community noise impacts from non-transportation noise sources is through the application of the existing Fountain Valley Noise Ordinance. The existing Noise Ordinance for the City will be a useful tool in controlling any resulting noise impacts on the future residential areas.

The Fountain Valley Noise Ordinance should be applied to protect existing residences from construction noise associated with redevelopment projects planned for the City. As mentioned previously a number of school sites within the City will be converted to residential uses. Construction noise associated with these redevelopment projects could potentially impact adjacent residences. In addition, redevelopment is planned for much of the southeastern side of the City. This area is bounded by Warner Avenue, the Santa Ana River, Ellis Avenue, Ward Street, Talbert Avenue, Euclid Street and Slater Avenue. Construction noise

related to development in this area could potentially impact residences adjacent to these roadways. Specific projects planned for this area include development of the area just east of the Fountain Valley Hospital, light industrial/commercial development of the South Park area, and commercial manufacturing development of the "furniture-row" area just south of Talbert Avenue. Construction noise from the development of the Civic Center, located near the corner of Slater Avenue and Brookhurst Street, and at the corner of Talbert Avenue and Brookhurst Street could also impact adjacent land uses. Finally, the County of Orange's plans for the Sanitation Treatment Plant may include further development on site which could potentially impact the adjacent residences located west of the plant and along Ward Street. The Fountain Valley Noise Ordinance should be applied to protect existing residences against construction related noise impacts due to the above projects.

The Noise Ordinance should also be enforced to protect adjacent residences against noise impacts due to special concerts held within Mile Square Park.

Goal

- 7.1 Protect public health and welfare by eliminating existing noise problems and preventing significant degradation of the future acoustic environment.

Policies

- 7.1.1 Incorporate noise considerations into land use planning decisions.
- a. Establish acceptable limits of noise for various land uses throughout the community. The City adopts the noise standards presented in Figure 7-9 which identify interior and exterior noise standards in relation to

LAND USE CATEGORIES		ENERGY AVERAGE CNEL	
CATEGORIES	USES	INTERIOR ¹	EXTERIOR ²
RESIDENTIAL	Single Family, Duplex, Multiple Family	45 ³	60
	Mobile Homes	45*	60
COMMERCIAL INDUSTRIAL INSTITUTIONAL	Hotel, Motel, Transient Lodging	45	60 ⁴
	Commercial Retail, Bank, Restaurant	55	—
	Office Building, Research and Development, Professional Offices, City Office Building	45	—
	Amphitheatre, Concert Hall, Auditorium, Meeting Hall	45	—
	Gymnasium (Multipurpose)	50	—
	Sports Club	55	—
	Manufacturing, Warehousing, Wholesale, Utilities	65	—
	Movie Theatres	45	—
INSTITUTIONAL	Hospital, Schools' classroom	45	65
	Church, Library	45	—
OPEN SPACE	Parks	—	65

INTERPRETATION

- Indoor environment excluding: Bathrooms, toilets, closets, corridors.
 - Outdoor environment limited to: Private yard of single family
Multi-family private patio or balcony which is served by a means of exit from inside.
Mobile home Park
Hospital patio, office patio
Park's picnic area
School's playground
Hotel and motel recreation area
 - Noise level requirement with closed windows. Mechanical ventilation system or other means of natural ventilation shall be provided as of Chapter 12, Section 1205 of the UBC.
 - Except those areas effected by aircraft noise.
- * Due to the variable nature of mobile homes, a 15 dB outdoor to indoor noise reduction with windows closed should be assumed for indicating compliance with this standard.

specific land uses; particularly residential areas, schools, hospitals, open space preserves and parks. The standards specify the maximum noise levels allowable for new developments impacted by noise sources operating in public or quasi-public property.

b. The City may require an environmental and noise impact evaluation for projects if determined necessary by the Environmental Review Committee. Should noise abatement be necessary, the City shall require the implementation of mitigation measures based on a detailed technical study prepared by a qualified acoustical engineer.

c. The City shall consider establishing a periodic noise monitoring program to identify progress in achieving noise abatement and to perform necessary updating of the noise element and community noise standards.

d. The City shall minimize potential transportation noise through proper design of street circulation, coordination of routing, and other traffic control measures.

7.1.2 Establish measures to reduce noise impacts from traffic noise sources.

a. The City may require the construction of barriers to mitigate sound emissions where necessary or where feasible. Barriers shall not have gaps or

openings. Wherever possible, freeway walls shall not stop short of bridge overcrossings but shall continue until meeting with the walls supporting the bridges. Without prevention, openings or gaps could render the sound walls ineffective.

b. The City shall insure the effective enforcement of City, State and Federal noise levels by all appropriate City divisions.

c. The City shall actively advocate noise control requirements for all new motor vehicles.

7.1.3 Establish measures to control non-transportation noise impacts.

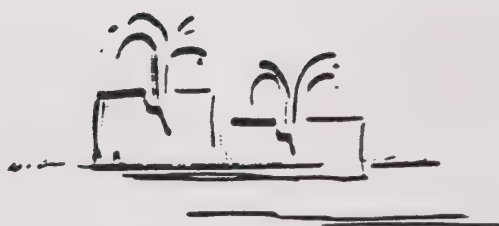
a. The City shall enforce the Fountain Valley Noise Ordinance to mitigate noise conflicts between adjacent land uses. The Noise Ordinance establishes noise limits that cannot be exceeded at the property line. The Noise Ordinance, because it is a City statute, can only control noise generated on private property. Therefore, the primary function of the Noise Ordinance is to control stationary noise sources and construction noise.

b. The City shall evaluate noise generated by construction activities, and subject them to the requirements of the Noise Ordinance.

c. The City shall establish and maintain coordination among the City agencies involved in noise abatement.

- d. The City shall insure the effective enforcement of City, State and Federal noise levels by all appropriate City divisions. The City shall provide quick response to complaints and rapid abatement of noise nuisances within the scope of the City's police powers.
- e. The City shall coordinate with the California Occupational Safety and Health Administration (Cal-OSHA) to provide information on and enforcement of occupational noise requirements within the City.

8.0 AIR QUALITY



CHAPTER 8.0

AIR QUALITY

8.1 INTRODUCTION

State planning law does not presently require an Air Quality Element within a General Plan, it is considered an optional element. Once adopted, an optional element has the same force and effects and is as legally binding as any mandatory element, as stipulated in Government Code Section 65303, as follows:

"The general plan may include any other elements or address any other subjects which, in the judgement of the legislative body, relate to the physical development of the county or city."

As addressed in further detail in the ensuing discussion, the South Coast Air Quality Management District (SCAQMD) and the Southern California Association of Governments (SCAG) jointly prepared the Air Quality Management Plan (AQMP) in 1989. The AQMP calls upon local governments to achieve an 8% reduction regionwide in emissions from reactive organic gases and oxides of nitrogen. Specifically, local governments are asked to implement appropriate control measures contained in the AQMP to achieve this reduction. Several measures direct local government to adopt an Air Quality Element or its equivalent into its General Plan.

Regulatory Framework

The Federal Clean Air Act, promulgated in 1970 and amended twice thereafter (including the recent 1990 amendment), establishes the framework for modern air pollution control. The Act directs the Environmental Protection Agency (EPA) to establish ambient air standards for six pollutants: Ozone, Carbon Monoxide, Lead, Nitrogen Dioxide, Particulate Matter and Sulphur Dioxide. The standards (NAAQS) are divided into

primary and secondary standards; the former are set to protect human health within an adequate margin of safety and the latter to protect environmental values such as plant and animal life.

Sources of emissions can be divided into two major categories: stationary sources and mobile sources. Stationary sources are made up of industrial, manufacturing, commercial, residential and service land use activities, while mobile sources are made up of on-road and other mobile sources. Of the two major emissions sources, mobile sources are the largest contributor to air quality degradation.

According to the Act, states are required to submit a State Implementation Plan (SIP) for areas that exceed the NAAQS, or nonattainment areas. The SIP, which is reviewed and approved by the EPA, must demonstrate how federal standards will be achieved. Failure to submit a plan or secure approval could lead to denial of federal funding and permits for such improvements as highway construction and sewage treatment plants. In cases where the SIP is submitted but fails to demonstrate achievement of the standards, the EPA is directed to prepare a Federal Implementation Plan.

With the aim of complying with all federal standards by 2007, the SCAQMD and the Southern California Association of Governments (SCAG) jointly prepared the 1989 Air Quality Management Plan (AQMP). The Plan, which is discussed in greater detail in the following paragraphs, calls for the implementation of rules and regulations by the Air Resources Board, the SCAQMD, the EPA and local jurisdictions.

The AQMP calls upon local governments to achieve an 8% reduction regionwide in emissions from reactive organic gases and oxides of nitrogen. Specifically,

local governments are asked to implement appropriate control measures contained in the AQMP to achieve this reduction. Several measures direct local government to adopt an Air Quality Element or its equivalent into its General Plan, and to include Growth Management policies.

If all of the applicable control measures are not implemented, the air quality standards cannot be achieved. In this event, the existing moratorium on the location of stationary sources in the basin will be continued and federal funding and other permits may be denied until the standards are met.

In an effort to comply with federal and state regulations, this element has incorporated many of the recommendations of the AQMP.

Air Quality Management Plan

The SCAQMD has responsibility for reducing pollution from stationary sources, and mobile sources, in the 1991 plan, as well as the legal authority to mandate necessary actions leading to improved air quality. The SCAQMD, in conjunction with the region's elected officials, have agreed on measures that are intended to bring the region into conformance with all Federal Clean Air Standards in 20 years. These measures are detailed in the AQMP adopted by SCAG and the SCAQMD in March, 1989.

When the AQMP was adopted, a number of issues and concerns remained regarding its implementation. In order to assure those issues would be addressed, the AQMP called for the formation of two task forces, one to deal with growth management and transportation issues, the other with socio-economic and public health impacts.

Growth Management and Transportation

The Growth Management and Transportation Task Force was therefore convened in June 1989 to provide recommendations that would foster implementation of the 1989 AQMP as well as recommend revisions to be incorporated into the 1991 Plan. (As mentioned previously, the California Clean Air Act requires adoption of the next plan by June 1991.) The Task Force, comprised of elected officials from City and County governments, representatives of transportation agencies, public and private sector organizations and other public agencies, have met on a monthly basis to grapple with these issues. The following are highlights of the Task Force accomplishments:

- o **Growth Management Plan (GMP) Implementation** - The Task Force recommended that subregional Vehicle Miles Traveled (VMT) and congestion reduction targets be developed so that local governments have flexibility in how they achieve VMT reductions equivalent to those attributed to job/housing balance. The Task Force further recommended market incentive measures as primary means of implementing VMT/congestion reductions or job/housing balance.
- o **Regional Mobility Plan** - An institutional framework for inter-county regional transit to address the institutional hindrances to RMP Transit Element implementation was proposed by the Task Force. The Task Force proposed that funds generated through pricing mechanisms as a result of Propositions 111 and 118 could be invested in transit programs. The Task Force also recommended the completion of the emerging High Occupancy Vehicle (HOV) network should continue to receive high priority for RMP implementation, and that parking pricing strategies and other AQMP measures which

encourage modified travel behavior needed to support transit objectives should be implemented uniformly within the subregions.

- o Market Incentives - The Task Force recommended that market incentive programs be utilized as primary mechanisms for implementing transportation demand management (TDM) measures in the AQMP. A joint SCAG/SCAQMD Public Outreach and Educational Program has been developed to facilitate local government participation in AQMP implementation. The Task Force has also made recommendations regarding the development of AQMP Conformity Guidelines and Air Quality Element Guidelines. In addition, several recommendations have been made regarding plan implementation funding.

The Three-Tiered Approach

The AQMP sets forth a three-tiered approach to address the region's air quality problems. Starting with measures that rely upon existing technology in Tier One and graduating up to undeveloped technologies in Tiers Two and Three. Tier One primarily involves implementation of the Traffic Demand Management and Traffic Systems Management measures contained in the Regional Mobility Plan: carpooling, ridesharing, intersection improvements, transit, telecommunications, signal coordination, etc. Tiers Two and Three involve stricter controls of emissions from stationary sources, such as oil refineries, as well as stricter controls on small businesses (drycleaning) and domestic air pollutants (barbecues, gas-fueled lawn mowers, etc.).

For Tier One, covering the first five years (1989-1994), the following order of compliance is proposed:

1. All governmental agencies are to adopt regulations requiring employers and contractors to implement Tier One programs within the first year.
2. All cities and counties should adopt a Growth Management and Air Quality Element into their General Plans within the first year and a half. Through these Elements, action programs will be developed to further implement these measures.
3. Local Zoning, Business License, and Trip Reduction Ordinances are to be adopted to expand these measures to new and existing developments in the second and third year.
4. Intergovernmental Agreements should be developed as necessary to further implement certain measures.

Annual performance surveys will be prepared by SCAG. By the end of the fourth year, a cumulative review of local governments' performance will be prepared.

In the past, compliance with SCAG's plans has been entirely voluntary on the part of jurisdictions. However, since many of the SCAG proposals have been written into the full Air Quality Management Plan adopted by the SCAQMD, which has extensive enforcement powers, voluntary implementation of the measures may be the only means of forestalling mandatory compliance.

Regulation XV - Commuter Program

Regulation XV represents the SCAQMD's first step in implementing the Air Quality Management Plan. Also known as the "Commuter Program", Regulation XV requires that employers of more than 100 persons at any given work site develop a plan to require employees to reduce vehicle miles traveled to work. Depending upon the location site of the employer, Regulation

XV sets forth three attainable target average vehicle riderships (AVR's) ranging from 1.3 to 1.75 people per vehicle.

All mandated employers must submit plans to include:

- o the current AVR
- o proposed measures to increase AVR
- o specific incentives that will be offered to employees
- o the name of a trained transportation coordinator who will be responsible for the implementation and ongoing success of an employer's Trip Reduction Plan.

Air Quality

The air quality in Orange County, and specifically Fountain Valley results from a unique combination of factors: air flow patterns and emission sources, both local and those located throughout the region. These factors result in some of the worst air quality in the nation.

Pollutants

Six major air pollutants are monitored by the AQMD: sulfur dioxide (SO₂), lead, ozone (O₃), nitrogen dioxide (NO₂), carbon monoxide (CO) and fine particulate matter (PM₁₀). With stringent controls imposed upon industry and leaded gasoline during the last ten years, sulfur dioxide and lead levels have been reduced to safe levels. However, the remaining four air pollutants still exceed safe levels.

The City of Fountain Valley is located within SCAQMD's Source Receptor Area 18, the designated monitoring station for Area 18 is Costa Mesa. The Costa Mesa Station does not measure particulate, lead, and sulphate emissions, these measurements are made at the Los Alamitos Station, Station 17. Measurements from both stations indicate that ozone is the air pollutant of

primary concern in the area. Particulate samples taken over the last three years exceeded the State particulate standard 34% of the time. The State standard for carbon monoxide was not exceeded in the last three years, and the nitrogen dioxide standard was exceeded only once. See Table 8-1.

The most severe air pollution problem occurs adjacent to the San Diego Freeway (I-405). These areas along the freeway are subjected to high concentrations of carbon monoxide pollution. Typically, the most serious air pollution episodes occur in the late night or early morning hours when the winds have shifted and are blowing inland pollution back towards the ocean through the City. In these cases, high pollution levels can be expected to be evenly distributed throughout the City.

In addition, the South Coast Air Quality Management District (SCAQMD) identified two potential "toxic hot spots" within the City: Newport Adhesive and Composites at 17390 Mt. Cliffwood Circle and the Orange County Sanitation District Plant No. 1 at 10844 Ellis Avenue.

These facilities may pose a health risk and must submit a risk assessment to determine what, if any health risks exist to surrounding communities.

Goal

- 8.1 Air quality which meets the standards set by the State and Federal governments.

Policies

- 8.1.1 Coordinate with other jurisdictions in Orange County and the surrounding area to establish parallel air quality plans and implementation programs.

TABLE 8-1

**Measured Air Quality Levels
Costa Mesa Air Quality Monitoring
Station**

Pollutant	California Standard	National Standard	Year	Maximum Level	Days State Std. Exceeded
Ozone	0.10 ppm for 1 hr.	0.12 ppm for 1 hr.	1987	0.16	23
			1988	0.15	15
			1989	0.11*	2*
CO	20 ppm for 1 hr.	35 ppm for 1 hr.	1987	12	0
			1988	16	0
			1989	16*	0*
Particulates ¹	50 ug/m3 for 24 hrs.	150 ug/m3 for 24 hrs.	1987	163	21/59
			1988	132	15/57
			1989	138	21/55
NO2	0.25 ppm for 1 hr.	0.05 ppm annual avg.	1987	0.19	0
			1988	0.26	1
			1989	0.22*	0*

(1) The particulate standard for California was changed in 1984 to include only matter with an aerodynamic diameter of 10 micrometers or less (PM10). Particulate levels were not monitored at the Costa Mesa Station. PM10 levels for Area 17 are monitored at the Los Alamitos Station. Therefore, the particulate concentrations shown were taken at the Los Alamitos Station. Exceedances are shown as the number of samples exceeding the State standard per the number of samples taken.

* Less than 12 full months of data. May not be representative.

- 8.1.2 Achieve conformance with mandated pollution reduction plans, congestion management plans, and transportation demand management plans.
- 8.1.3 Promote the use of bus, rail, high occupancy vehicles and other forms of transit or telecommuting within the region in order to further reduce pollutants.
- 8.1.4 Cooperate with other jurisdictions in the South Coast Air Basin to reduce the number of vehicle trips, reduce vehicle miles travelled, and reduce traffic congestion.
- 8.1.5 Reduce polluting emissions through reduced energy consumption.

8.2 JOBS/HOUSING BALANCE

The jobs-housing balance has become a major planning and public policy issue in recent years within the region. The issue of jobs-housing balance has been incorporated into the SCAQMD's AQMP as part of a comprehensive effort to manage traffic congestion and air pollution. The concept of jobs-housing balance refers to the distribution of employment relative to the distribution of workers within a given geographical area. A community is considered "balanced" when these distributions are approximately equal. The concept implicitly assumes that workers will choose to work as close to their home as possible (or that workers choose homes as close to their job as possible). If a given area has a much greater concentration of employment than resident workers, workers must be attracted from other areas, leading to longer commutes. Similarly, if residents greatly outnumber job opportunities, they must seek jobs in more distant areas.

1988 SCAG Plan

Based on the 1988 SCAG Plan, most of the employment growth between now and 2010 is projected to occur in the highly urbanized areas while most of the increase in housing construction is projected to take place in the urbanizing regions of Riverside, San Bernardino, and southeast Orange County. This increasing job-housing imbalance can only intensify existing problems and further impact patterns of mobility and air quality, the distribution of tax revenues, the character of communities, productivity and socio-psychological well being of workers, and the general quality of life in the region. Hence, the issue of jobs-housing balance is of extreme importance.

SCAG recognizes that in terms of the ratio of total employment to total population, Orange County as a whole is forecast to become relatively balanced. However, it is quite likely that this county will continue to have an imbalance in terms of actual residents and actual employees, resulting in continued high levels of commute both in and out of the County.

Ideally, a jobs-housing balance is to be reached by the year 2010 at the sub-regional level in Southern California. SCAG has outlined 24 sub-regions and jobs-housing ratios for 1984 and 2010. These current and projected ratios are summarized in Table 8-2 which notes a jobs-housing balance of 1.44 for the Northwest Orange County sub-region within which Fountain Valley is located.

TABLE 8-2

Jobs-Housing Balance for
Selected Subregions

	<u>1984</u>	<u>2110</u>
Central Los Angeles	1.85	1.83
Santa Monica Bay	1.46	1.52
Northwest Orange County	1.34	1.44
Southeast Orange County	1.45	1.40
Long Beach/Downey	1.21	1.26
San Fernando Valley	1.28	1.26
Oxnard-Ventura	1.22	1.22

Source: Southern California Association of Governments, "Description of Methodology and Analysis of the Approved GMA-4 Modified Jobs-Housing Balance Forecast", July 13, 1988.

As of 1984, the City had a jobs-housing ratio of 1.04 and by 2010 is projected to have a ratio of 1.2 jobs per housing unit. This ratio is nearly ideal based on SCAG criteria. In summary, the City will have sufficient housing to accommodate the needs generated by jobs in Fountain Valley.

To further ensure that the jobs-housing distribution is attained, SCAG has proposed four alternative strategies:

- o Market Adjustment Strategy - Facilitating housing, labor and transportation market trends leading to better jobs-housing balance.
- Many of the actions suggested by SCAG suggest a combination of mitigation, regulation, market place modification, and investment incentive elements. Thus, for example, infrastructure funding is a public investment which also works as a market adjustment. Imposing exactions, besides affecting a development's financial package could also call for local or regional regulations to put in place a system for management and strategic investment of funds collected through exactions. Therefore, the difference between mitigation, market adjustment, regulatory and investment measures are a matter of relative emphasis.
- SCAQMD**
- The SCAQMD realizes that the jobs-housing balance issue is controversial and not accepted by many of the local agencies. Since the focus of jobs-housing ratio is the reduction of VMT and associated emissions reductions, it is the VMT equivalent to the jobs-housing balance ratios that is the important indicator of GMP goal achievement, rather than the attainment of specific housing or job targets. SCAQMD is currently in the process of revising the AQMP and incorporating a goal of vehicle miles reduction as opposed to a goal of a jobs-housing ratio.
- Goal**
- 8.2 Maintain or improve the balance between jobs and housing in order to create a more efficient urban form, reduce vehicle miles travelled (VMT), and reduce traffic congestion.
- o Mitigation Strategy - Imposing on developers of public and private projects impact mitigation measures if proposals contribute to jobs-housing imbalance beyond allowable thresholds and allocation.
 - o Regulatory Strategy - Setting limits on developments leading to jobs-housing imbalance.
 - o Investment Strategy - Targeting or withholding of public financing to bring about targeted jobs-housing balance.

Policies

- 8.2.1 Coordinate with surrounding jurisdictions to develop mutually acceptable approaches to improve and maintain a jobs/housing balance.
- 8.2.2 Promote the opportunities for human resource development.

9.0 HOUSING



FINAL HOUSING ELEMENT
OF THE
GENERAL PLAN

CITY OF FOUNTAIN VALLEY

JULY 1992

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1. INTRODUCTION

OVERVIEW

State law requires that the City's Housing Element is to be updated by mid-year 1989. An updated element should:

1. Comply with the substantive requirements of current housing element law (Article 10.6 of the Government Code, comprised of Sections 65580-65589.5).
2. Include a review of the housing element adopted on January 1984 encompassing an evaluation of its effectiveness, progress in implementation, and appropriateness of goals, objectives and policies.
3. Incorporate a new five-year planning period covering 1989 to 1994.
4. Update existing and future housing needs based on the data prepared by the Southern California Association of Governments.
5. Provide current information on site availability.
6. Revise objectives and programs to reflect the new needs analysis and evaluation of previous objectives and programs.
7. Contain information and planning policies which are consistent with other elements of the General Plan.

PLANNING RECONNAISSANCE

To prepare this report and gather background information, a review was conducted of several reports, planning documents and existing conditions. Information from these reports was extracted and used in the needs assessment, as appropriate. For example, the City's most recent Housing Assistance Plan contains estimates on units suitable and not suitable for rehabilitation as well as the tenure distribution of this segment of the supply. That data was used to describe the "condition of housing" which is an informational requirement of housing elements.

Other subject areas in which the planning reconnaissance assisted in the completion of this report include:

- Trends in population and overcrowding.
- Rental assistance needs of large families.
- Possible CDBG funding to address the needs of homeless persons and families.
- Employment characteristics encompassing number, type and location of jobs.
- Number of circulation corridors.
- Neighborhoods and basic residential land use characteristics.

The data collected by completion of the data reconnaissance was used in other phases of the Housing Element Update. These other phases include, for instance: identification of governmental constraints; preparation of a progress report; and revision of the 5-Year Housing Program.

CITIZEN PARTICIPATION

State law requires that as part of the element preparation process, efforts be made to achieve participation of all economic segments of the community. During the Draft stage, the Housing Element was reviewed by the City's Housing and Community Development Advisory Board and General Plan Citizens Advisory Committee. In addition, notices of public hearings were available at the City Hall and Library as well as published in the local newspaper. The staff also made copies of the Draft Housing Element available to housing advocacy groups. Moreover, public hearings were conducted before the Planning Commission and City Council.

2. PROGRESS REPORT

PROGRESS REPORT

Introduction

State housing law requires that each city, as part of the update process, review its housing element to evaluate:

- (1) The appropriateness of the housing goals, objectives, and policies in contributing to the attainment of the state housing goal.
- (2) The effectiveness of the housing element in attainment of the community's housing goals and objectives.
- (3) The progress of the city, in implementation of the housing element.

According to the State Department of Housing and Community Development, a "progress report" should include an analysis of:

- (a) "Effectiveness of the element" (Section 65588 [a][2]): A comparison of the actual results of the earlier element with its goals, objectives, policies and programs. The results should be quantified where possible (e.g., rehabilitation results, but may be qualitative where necessary (e.g., mitigation of government constraints).
- (b) "Progress in implementation" (Section 65583 [a][3]): An analysis of the significant differences between what was projected or planned in the earlier element and what was achieved.
- (c) "Appropriateness of goals, objectives and policies" (Section 65588 [a][1]): A description of how the goals, objectives, policies and programs of the updated element incorporate what has been learned from the results of the prior element.

The 1984 Housing Element contain programs and quantified objectives. Statements on goals and policies were not expressly made but can be inferred from the array of action programs cited in the Housing Element. These programs, as later described, focused on housing conservation (affordability and structural/preservation); rental assistance through the Section 8 housing assistance program; reduction of governmental constraints by enactment of an affordable housing zone and housing cost reduction strategies; fair housing; and energy conservation. Chart 1 is a summary of 13 action programs, including funding, five-year goals and level of achievement.

CHART 1
SUMMARY OF HOUSING PROGRAMS: 1984 HOUSING ELEMENT

<u>Program</u>	<u>Funding</u>	<u>5-Year Goals</u>	<u>Level of Achievement</u>
1. Community Development Block Grant	CDBG	N/A	On-going; updated annually
2. Rental Assistance	Federal	70 households; 25% certificate holders	36 lower income households assisted annually
3. Housing Rehabilitation	CDBG	25 units	19 loans; 3 rebates; 3 grants
4. Code Enforcement	CDBG	50 units brought up code	Target # partially achieved
5. Condominium Conversions	General Fund	Loss of less than 1% of the housing stock to conv.	No conversions allowed
6. Mortgage Revenue Bond Housing	—————	Unknown (150 units maximum)	—————
7. Mobile Home Safety (renamed MH rehab.)	CDBG	10 units	85 grants
8. Affordable Housing Zone	—————	Unknown (150 units maximum)	36 units
9. Conditional Use Permits	General Fund	All construction	On-going/parking standards revised
10. Colonia Juarez	—————	Up to 88 units	50% built
11. Housing Cost Reduction	CDBG	30 units	71 units built
12. Orange County Fair Housing Council	CDBG	Unknown (as needed)	Services funded annually; 52 discrimination cases handled; 1,142 landlord-tenant cases; 26 counseling
13. Energy Conservation	General Fund	All new housing	Title 24 implemented

1984 HOUSING ELEMENT PROGRAM DESCRIPTION

1. Community Development Block Grant:

The 1984 Housing Element stated that CDBG funding has been used for a variety of projects over the previous 10 years. In 1984, the CDBG program was the major source of funding for housing programs in the City.

2. Rental Assistance:

The Orange County Housing Authority administers the Section 8 Rental Assistance program for the City. Under this program, certified low and moderate income households pay 25% of their income for rent and the federal government makes up the difference between this amount and the fair market rent. In 1984, the high average rents in the City made it difficult for eligible households to find units which they could rent under the program. It was hoped that between 1984-1990, more households would be able to use the program so that the City's ratio of households assisted to households certified as eligible would be the same as that for Orange County as a whole (i.e., 25%).

3. Housing Rehabilitation:

The City uses CDBG funds to make low interest loans to assist lower income households, the elderly and handicapped to make necessary repairs and modifications to their units. There are limits to the amount of the loan and the repairs must be those which will bring the house up to code or make it suitable for the people living in it. Modifications necessary to make a unit accessible for handicapped people can also be made with a rehabilitation loan. In the early 1980's, the City had averaged 2 to 5 loans per year and expected to continue to achieve that goal in the future. The City planned to expand this program to provide rehabilitation loans for low and moderate income owners of mobile homes.

4. Code Enforcement:

In order to ensure that the housing stock is maintained in good condition, prevent deterioration, and correct overcrowding the City planned to continue an active code enforcement program. Staff periodically inspects all neighborhoods as well as responding to complaints, and then sends notices to property owners requiring them to correct the problem. The code enforcement program supplements the rehabilitation loan program.

5. Condominium Conversions:

The City has never permitted the conversion of an apartment to condominiums. There are so few apartment units in Fountain Valley that the City has a policy of encouraging their maintenance as rental units. In addition, most of the apartment building in the City do not meet the code requirements for owner-occupied housing. No conversions were expected over the life of the 1984-1989 Housing Element; however, should a conversion be presented to the City, each project would have been considered on an individual case basis on the merits of the proposed conversion. (No conversions were requested between 1984 and 1989.)

6. Mortgage Revenue Bonds:

Fountain Valley participates in the Orange County Housing Revenue Bond finance program. In 1982 a parcel of vacant land adjacent to the City was annexed and a special "affordable housing" zone created to permit the development of 162 units which were sold to low and moderate income first-time homebuyers under this program. In 1984, it was possible for other developers to participate in the bond program.

7. Mobile Home Safety:

The City has provided grants to mobile home owners to add fire exit doors, smoke detectors, and hot-spotters to detect faulty wiring. This program will increase the safety of the predominantly elderly residents of the City's two mobile home parks. This program will continue to be funded until the need has been satisfied, according to the 1984 Housing Element. (The program has been renamed mobile home rehabilitation.)

8. Affordable Housing Zone:

The City has created a special zone which can be used by affordable housing projects. It permits higher densities and reduced parking and unit size standards in comparison with the other multi-family housing zones. It may only be used by developers who agree to meet specific affordability standards for the type of housing which they are developing. By 1984, 162 units for first-time homebuyers had been built under this zone.

9. Conditional Use Permits:

Under the provisions of this program, the City would work with developers to ensure that development costs on the remaining parcels in Fountain Valley are not unnecessarily high due to inflexible zoning standards. Minimum lot size, setbacks, parking standards, and other standards may be varied so long as the final design is in keeping with surrounding properties, and meets minimum health and safety requirements. In implementing this program, the staff usually tries to meet with developers prior to the submission of the application to inform them of City requirements and to work out various design details.

10. Colonia Juarez:

One of the oldest subdivisions in the City was originally developed to provide housing for agricultural workers. The lots were narrow (50 feet) and very deep (300 feet) to permit the families to have their own kitchen gardens. With time and the development of most of the agricultural land in housing, portions of these lots became vacant and unused. Recognizing the need for more affordable housing, the City reduced the minimum lots size and lot lines of the properties. This made it possible to subdivide the very long lots and construct another unit on the back portion of each lot. Eighty-eight potential home sites remain in the area.

11. Housing Cost Reduction Program:

In 1984, the City had set aside \$528,000 of the CDBG funds to assist developers of affordable housing with land acquisition and preparation costs. Potential sites for such housing had been identified and planning staff had met with several developers. The City planned to continue to seek appropriate projects for funding. Staff had estimated that approximately 30 units could be subsidized with this funding, however, more units could be achieved if the program were combined with other subsidies. The City also has acquired the "Petrolane" site through the use of CDBG funds. This site, slightly less than one acre in size, will be used for an affordable housing development.

12. Orange County Fair Housing Council:

Fountain Valley contracts with the Orange County Fair Housing Council to provide information and assistance to tenants and buyers who feel that they have been the victims of discrimination. The City expected to continue this service for the life of the 1984-1989 Housing Element.

13. Energy Conservation:

In order to conserve energy and reduce air pollution, in the area, the City encourages the use of solar energy where appropriate. Swimming pools in multi-family housing developments must be solar heated and all new housing must provide plumbing to accommodate solar water heating. In 1984, the City did not have a solar access ordinance because the problem had not yet emerged. In addition, rehabilitation loan funds may be used to insulate and weather proof existing housing, including mobile homes.

The CDBG program is the major source of funding for housing programs in the City. The annual grant works out to approximately \$50 per low/moderate income household in the City.

1981/82 grant - \$390,000
1982/83 grant - \$376,000
1984/84 grant - \$368,000
1984/85 grant - \$377,000
1985/86 grant - \$370,000
1986/87 grant - \$259,000
1987/88 grant - \$314,000
1988/89 grant - \$306,000
1990/91 grant - \$292,000
1991/92 grant - \$289,000

Over the ten years that the City has participated in the CDBG program, it has funded a variety of projects designed to improve or increase the supply of affordable housing or assist lower income residents. Since there is very little land available for new affordable housing, the City's efforts have focused on maintaining existing affordable housing and providing the support services necessary to make it possible for lower income residents to remain in Fountain Valley. The CDBG-funded project include:

- (1) Construction of new streets and street improvements in the Colonia Juarez subdivision to open up additional land for housing development and upgrade this traditionally lower income area. (A more complete description is given below.)
- (2) Below market interest rate rehabilitation loans as well as grants and rebates to lower income, elderly, or handicapped households to repair their homes. Initially these loans were targeted only at stick-built housing. However, staff analysis showed a considerable need for assistance from lower income, elderly mobile homeowners and the program has been expanded to assist these residents.
- (3) Grants to lower income mobile homeowners to install fire exit doors, smoke detectors, and hot-spotters to locate faulty wiring.
- (4) Modified a building to provide a senior citizens center for recreational, counseling, and information services to the City's growing population of elderly residents.
- (5) Assisted the Womens Transitional Living Center in the acquisition and rehabilitation of a converted hospital to serve as a temporary shelter for abused women.
- (6) Acquisition of a 2.2 acre site for construction of affordable housing for senior citizens.
- (7) Assisted in the construction of Orangewood Home for dependent children.
- (8) Restoration of three historic commercial buildings.
- (9) Public service grants to agencies which assist those residents and households with special needs including:
 - Crisis intervention hotline;
 - Rehabilitation services to the disabled to permit them to live independently;
 - Substance abuse counseling;
 - Delinquency diversion programs;
 - Daycare and after school care for the children of lower income working parents; and
 - Fountain Valley adult day care.

Despite the variety of appropriate programs which the City has identified and funded, there is still a balance of over \$100,000 of unexpended CDBG funds.

It is assumed that some type of land write-down will be required to facilitate an affordable housing project at the Petrolane site. Therefore, it is assumed that the City will only recapture a "portion" of the \$625,000 in CDBG funds used to purchase the Petrolane site.

Other significant components of the 1984 Housing Element included the Section 8 rental assistance program, CDBG housing rehabilitation program, first-time homebuyer program and senior citizen housing program. The extent of progress on implementation of these programs is discussed in the next sub-section.

EFFECTIVENESS OF THE ELEMENT

The City expected that the maximum number of housing units which could realistically be rehabilitated, conserved or produced between 1984 and 1990 was as follows:

Rehabilitated:	25 units
Conserved:	Loss of less than 1% of the housing stock to demolitions or conversions
Constructed:	430 units total (30 units very low income) (100 units low income) (100 units moderate income) (200 units upper income)

PROGRESS IN IMPLEMENTATION

With regard to housing rehabilitation, the City has averaged five to ten loans per year over the past few years. Thus, the quantitative object of 25 units was attained. In the past five years, any units demolished were replaced, according to Building Department statistics. In addition, 36 households were assisted by the Section 8 rental housing assistance program. This is below the numerical target that was previously established. In the past five years, 107 housing units were constructed that were affordable to very low; low- or moderate-income households.

APPROPRIATENESS OF GOALS, OBJECTIVES AND POLICIES

The 1984 Housing Element does not include an explicit statement of goals, objectives and policy statements. This omission has been corrected in the new Housing Element which covers the 1989-1994 planning period.

HOUSING NEEDS ASSESSMENT^{3.}

PLANNING REQUIREMENTS

According to Article 10.6, Section 65583 (a), of the Government Code, a housing element must include:

“An assessment of housing needs and an inventory of resources and constraints relevant to the meeting of these needs. The assessment and inventory shall include the following:

- (1) *Analysis of population and employment trends and documentation of projections and a quantification of the locality's existing and projected housing needs for all income levels. These existing and projected needs shall include the locality's share of the regional housing need in accordance with Section 65584.*
- (2) *Analysis and documentation of household characteristics, including level of payment compared to ability to pay, housing characteristics, including overcrowding, and housing stock condition.*
- (3) *An inventory of land suitable for residential development, including vacant sites and sites having potential for redevelopment, and an analysis of the relationship of zoning and public facilities and services to these sites.*
- (4) *Analysis of potential and actual governmental constraints upon the maintenance, improvement, or development of housing for all income levels, including land use controls, building codes and their enforcement, site improvements, fees and other exactions required of developers, and local processing and permit procedures.*
- (5) *Analysis of potential and actual non-governmental constraints upon the maintenance, improvement, or development of housing for all income levels, including the availability of financing, the price of land, and the cost of construction.*
- (6) *Analysis of any special housing needs, such as those of the handicapped, elderly, large families, farmworkers, families with female heads of households, and families and persons in need of emergency shelter.*
- (7) *Analysis of opportunities for energy conservation with respect to residential development.*

This part of the Housing Element reports on a needs assessment encompassing the above italicized topics.

POPULATION AND EMPLOYMENT TRENDS

Section 65583 (a)(1), as noted above, requires that one part of the housing needs assessment include:

- Analysis of population and employment trends.
- Documentation of population and employment projections.
- Quantification of existing needs.
- Quantification of projected needs.

The assessment of existing and projected needs must include the locality's share of the regional housing need, as explained earlier.

Population and Employment Trends Analysis

Regional Setting

Fountain Valley is located in northwest Orange County, as shown on Exhibit 1. Incorporated in 1957, the City is situated 30 miles southeast of Los Angeles and 90 miles northwest of San Diego. Interstate 405 ties Fountain Valley into the Southern California freeway network. The City is located within convenient driving time of four airports.

Fountain Valley is a predominantly built-out suburban community. Most of the land area in the City is developed as single-family residential neighborhoods. The commercial sector is well established but has suffered from outleakages of consumer support for certain sectors. Fountain Valley ranked 18th out of 23 cities with respect to per capita taxable sales. There are 635 acres in the City zoned for planned industry; an estimated 20% of this acreage is vacant and available in parcels ranging in size from one to 80 acres. There are an abundance of major circulation corridors throughout the City. These include: Brookhurst Street; Warner Avenue; Magnolia Street; Harbor Boulevard; and Euclid Street.



Regional Location
FOUNTAIN VALLEY
HOUSING ELEMENT

Population

Between April 1980 and April 1990, the population of Fountain Valley decreased from 55,080 to 53,691. Concurrently, the housing stock had a net positive change of 1,261 dwelling units. Table 1 presents population trends of the City during the 1980-1990 time period.

TABLE 1
CITY OF FOUNTAIN VALLEY: POPULATION TRENDS — 1980 TO 1989

<u>Year</u>	<u>Population</u>
1980	55,080
1981	54,905
1982	55,000
1983	55,100
1984	55,300
1985	55,600
1986	55,300
1987	55,600
1988	55,700
1989	56,108
1990	53,691

Source: U.S. Census of Population and Housing, April 1980 and April 1990. The annual estimates between these years were inaccurate per the Census figures.

State Department of Finance, Population Research Unit, Annual Population Estimates for 1981 through 1990, (as of January 1 each year)

Table construction by Castañeda & Associates.

Employment

There were an estimated 25,400 jobs in Fountain Valley in 1987 according to the estimates and projections of the Southern California Association of Governments. Fountain Valley has a variety of employment opportunities in both manufacturing and non-manufacturing firms. There are 70 manufacturing plants in Fountain Valley. Leading group classes of products are: electronics, scientific instruments, recreational vehicles and modular homes. Listed below in Tables 2 and 3 are the major employers in the City.

**TABLE 2
CITY OF FOUNTAIN VALLEY:
MANUFACTURING EMPLOYMENT**

<u>Name of Company</u>	<u>Employment</u>	<u>Products</u>
Transport Dynamic Corp.	270	Air Conditioning Systems
Newport Research Corp.	360	Laboratory Equipment
Krause's Sofa Factory	450	Upholstered Goods
AST Research Corp.	500	Computers
Hyundai	381	Automotive
Plastiflex	122	Industrial Tubing
McDonnell Douglas	<u>134</u>	Aerospace
	2,217	

SOURCE: Fountain Valley Planning Department
Community Economic Profile, January 1990.

**TABLE 3
CITY OF FOUNTAIN VALLEY:
NON-MANUFACTURING EMPLOYMENT**

<u>Name of Company</u>	<u>Employment</u>	<u>Products</u>
Home Club	110	Retail
Pacific Mutual	500	Life Insurance
FHP	1492	Health Maintenance Organization
Safeco	550	Insurance
F.V. Community Hospital	1408	Hospital
Pace	180	Retail
Hughes Market	106	Grocery Store
Albertsons	115	Grocery Store
Price Club	375	Retail Merchandise
Souplantation	98	Restaurant
Yellow Cab	191	Taxi Cabs
Star Real Estate	<u>110</u>	Real Estate
	5,235	

SOURCE: Fountain Valley Planning Department,
Community Economic Profile, January 1990.

Population and Employment Projections

Population

As of January 1990, the City had an estimated population of about 53,691 persons. SCAG's population projection for Fountain Valley indicates a population of 61,400 persons by the year 2010 for an increase of 7,709 in the next 20 years.

Employment

SCAG employment projections predict a growth of 6,500 jobs between 1987 and 2010. Employment growth projections of the City are summarized below:

<u>Year</u>	<u>Employment</u>
1987	25,400
2010	31,900

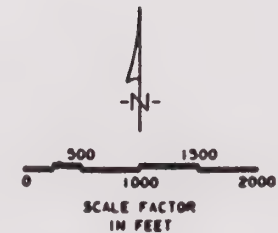
The major employment center of the City includes the industrial area bounded by Warner Avenue, Santa Ana River and San Diego Freeway. Exhibit 2 shows the boundaries of this job center.

Jobs-Housing Balance

This land use planning topic has been considered in several ways; some of these relate to housing needs. For instance, State law requires cities to zone "sufficient vacant land for residential use . . . in relation to zoning for non-residential use . . ." (Government Code Section 76913.1). Moreover, the State housing element, as noted in this sub-section, also requires that population and employment projections be considered by cities in estimated housing need.

The Southern California Association of Governments has prepared three interdependent plans to redirect growth in Ventura, Los Angeles, Orange, Riverside, San Bernardino and Imperial Counties to alleviate traffic congestion and reduce air pollution. The three interrelated plans are: Growth Management (GMP); Regional Mobility (RMP); and Regional Housing Needs Assessment (RHNA).

Ideally, a jobs-housing balance is to be reached by the year 2010 at the sub-regional level in Southern California. SCAG has outlined 24 sub-regions and jobs-housing ratios for 1984 and 2010. These current and projected ratios are summarized in Table 4 which notes a jobs/housing balance of 1.44 for the Northwest Orange County sub-region within which Fountain Valley is located. (The SCAG jobs and housing data are used because the RHNA figures are derived from this Agency's statistics and long-range forecasts.)



EXHIBIT

Employment Centers
FOUNTAIN VALLEY
HOUSING ELEMENT

TABLE 4
JOBS/HOUSING BALANCE FOR SELECTED SUBREGIONS

	<u>1984</u>	<u>2010</u>
Central Los Angeles	1.85	1.83
Santa Monica Bay	1.46	1.52
Northwest Orange County	1.34	1.44
Southeast Orange County	1.45	1.40
Long Beach/Downey	1.21	1.26
San Fernando Valley	1.28	1.26
Oxnard-Ventura	1.22	1.22

Source: Southern California of Government, "Description of Methodology and Analysis of the Approved GMA-4 Modified Jobs-Housing Balance Forecast", (July 13, 1988).

By 2010 the City is projected to have a ratio of 1.46 jobs per housing unit. This ratio is similar to the ratio throughout Orange County. In summary, the City will have sufficient housing to accommodate the needs generated by jobs in Fountain Valley.

Quantification of Existing Housing Needs

Section 65583 (a)(1) of the Government Code requires a quantification of a locality's existing housing needs. Pursuant to State law, SCAG is the regional planning agency delegated the responsibility for estimating the existing needs, in quantifiable terms, for the cities in the six county area encompassed by Ventura, Los Angeles, San Bernardino, Riverside, Orange, and Imperial Counties. These estimates and projections are included in the 1988 Regional Housing Needs Assessment (RHNA).

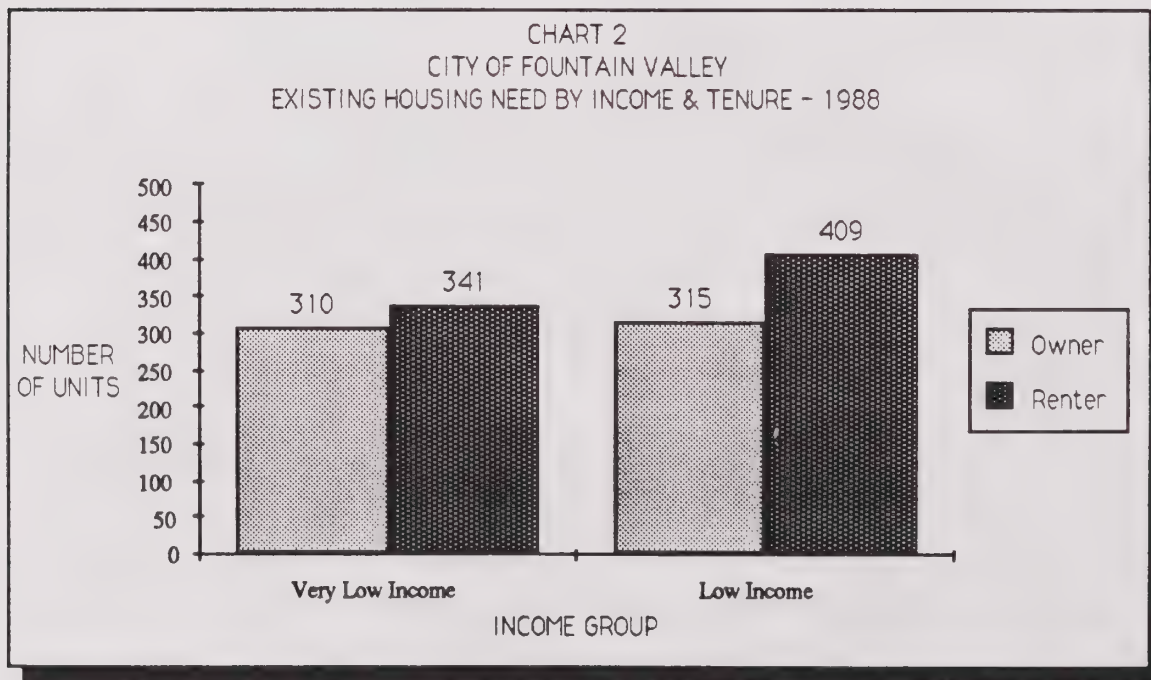
The RHNA defines existing need as the number of resident lower income households paying 30% or more of their income for housing. According to the RHNA, there are 1,375 resident lower income households paying 30% or more of their income on housing costs. This number equals 7.9% of Fountain Valley's total resident households. The income and tenure distribution of these 1,375 lower income households is listed in Table 5.

TABLE 5
CITY OF FOUNTAIN VALLEY: EXISTING HOUSING NEED
BY INCOME AND TENURE: 1988

	<u>Owner</u>	<u>Renter</u>	<u>Total</u>
Very Low Income (0-50% of median income)	310	341	651
Low Income (50% - 80% of median income)	<u>315</u>	<u>409</u>	<u>724</u>
Total:	625	750	1,375

Source: Southern California Association of Governments, 1988 Regional Housing Needs Assessment for Southern California, June 1988.

Table construction by Castañeda & Associates.



Projected Needs and Share of Regional Housing Need

Article 10.6 Requirements

According to Section 65584 (a), SCAG is the agency responsible for determining the projected housing needs of all cities in southern California. The projected housing needs must take into consideration the following factors:

- Market demand for housing
- Employment opportunities
- Availability of suitable sites
- Availability of public facilities
- Commuting patterns
- Type and tenure of housing needs
- Housing needs of farm workers

In addition, the distribution of housing need, pursuant to the state housing element law, must seek to avoid further “impaction” of jurisdictions with relatively high proportions of lower income households.

Southern California Association of Governments (SCAG) Criteria

Definition of Need: “Future Need” is defined as number of additional housing units by income level that will have to be added to each jurisdictions’ housing stock from July 1, 1989, to June 30, 1994 in order to:

- Accommodate household growth;
- Compensate for demolitions and other inventory losses;
- Achieve a 1994 vacancy rate that will allow the market to operate efficiently.

Definition of Income Groups: Four income levels are identified in State law that must be considered in the Future Need calculations. These are based on percentages of the County median income:

<u>Income Groups</u>	<u>Percent of Median Income</u>
• Very Low	< 50%
• Low	51% to 80%
• Moderate	81% to 120%
• Above Moderate	120% +

Income Limits: The annual incomes for each income level are defined annually by the State Department of Housing and Community Development. The incomes vary according to household size, gradually increasing by the number of persons in the household. Table 6 reports the Orange County income limits for the four income groups by household size (one to four persons).

TABLE 6
ORANGE COUNTY: 1991 INCOME LIMITS BY HOUSEHOLD SIZE

<u>Income Group</u>	<u>Household Size</u>			
	1	2	3	4
Very Low	\$18,250	\$20,900	\$23,500	\$26,100
Low	\$26,600	\$30,400	\$34,200	\$38,000
Moderate	\$36,550	\$41,750	\$47,000	\$52,200
Above Moderate	\$43,850	\$50,100	\$56,400	\$62,650

Source: Department of Housing and Community Development, Division of Housing Policy Development, "New Income Limits", (April, 1991).

Future Projected Need

These needs quantify the number of housing units by income level that should be added to each jurisdiction's housing stock from July 1, 1989 through June 30, 1994. Table 7 indicates Fountain Valley's projected housing needs through mid-year 1994. The projections indicate a need for 522 market rate housing units (i.e., moderate and above moderate income) during the planning period. In addition, the RHNA forecasted a need for 181 housing units for very low- and low-income households.

According to SCAG:*

“Identification of Future Need for the higher income levels gives each jurisdiction an estimate of effective demand, or how much demand for housing there will be in the locality as a function of market forces. Future Need at the lower income levels is often largely latent demand, since such income levels, without subsidy or other assistance, are often ineffective in causing housing to be supplied.” (emphasis added)

TABLE 7
CITY OF FOUNTAIN VALLEY: ADVISORY FUTURE
HOUSING NEEDS BY INCOME CATEGORY — 1989 TO 1994

<u>Income Group</u>	<u>Number of Housing Units</u>	<u>Percentage Distribution</u>
Very Low	89	12.6%
Low	97	13.7%
Moderate	150	21.2%
High	<u>372</u>	<u>52.5%</u>
Total:	708	100.0%

Source: Southern California Association of Governments, Revised Regional Housing Needs Assessment, (December 1988), Table 7A — Advisory Future Needs by Income Category.

Table construction by Castañeda & Associates.

* Southern California Association of Governments, 1988 Regional Housing Needs Assessment for Southern California, March 1988, page 8.

HOUSEHOLD AND HOUSING CHARACTERISTICS

Section 65583 (a)(2) of the Government Code requires that a housing element include an analysis of:

- Level of payment compared to ability-to-pay;
- General housing characteristics;
- Overcrowding; and
- Housing stock condition.

Level of Payment Compared to Ability to Pay

This analysis depends on the following factors:

- Annual income limits for the four income levels, adjusted by household size, as reported in Table 8.
- Percentage of income allocated to housing costs as a measure of ability-to-pay. This criterion is 30% allocated to housing costs based on the threshold adopted by SCAG in the assessment of existing housing needs.

Table 8 presents the analysis of level of payment compared to ability-to-pay. This analysis encompasses costs and income for households ranging in size from one to four persons. The average household size for Fountain Valley is three persons.

**TABLE 8
CITY OF FOUNTAIN VALLEY: LEVEL OF HOUSING
PAYMENT COMPARED TO ABILITY-TO-PAY -- 1991**

<u>Persons Per Household</u>	<u>Annual Income Limits</u>	<u>Monthly Level of Payment *</u>
<u>Very Low Income</u>		
1	\$18,250	\$456
2	\$20,900	\$522
3	\$23,500	\$587
4	\$26,100	\$652
<u>Low Income</u>		
1	\$26,600	\$665
2	\$30,400	\$760
3	\$34,200	\$855
4	\$38,000	\$950
<u>Moderate Income</u>		
1	\$36,500	\$912
2	\$41,750	\$1,044
3	\$47,000	\$1,175
4	\$52,200	\$1,305
<u>Above Moderate</u>		
1	\$43,850	\$1,096
2	\$50,100	\$1,252
3	\$56,400	\$1,410
4	\$62,650	\$1,566

* Ability-to-pay criterion is 30% of monthly income.
Table construction by Castañeda & Associates.

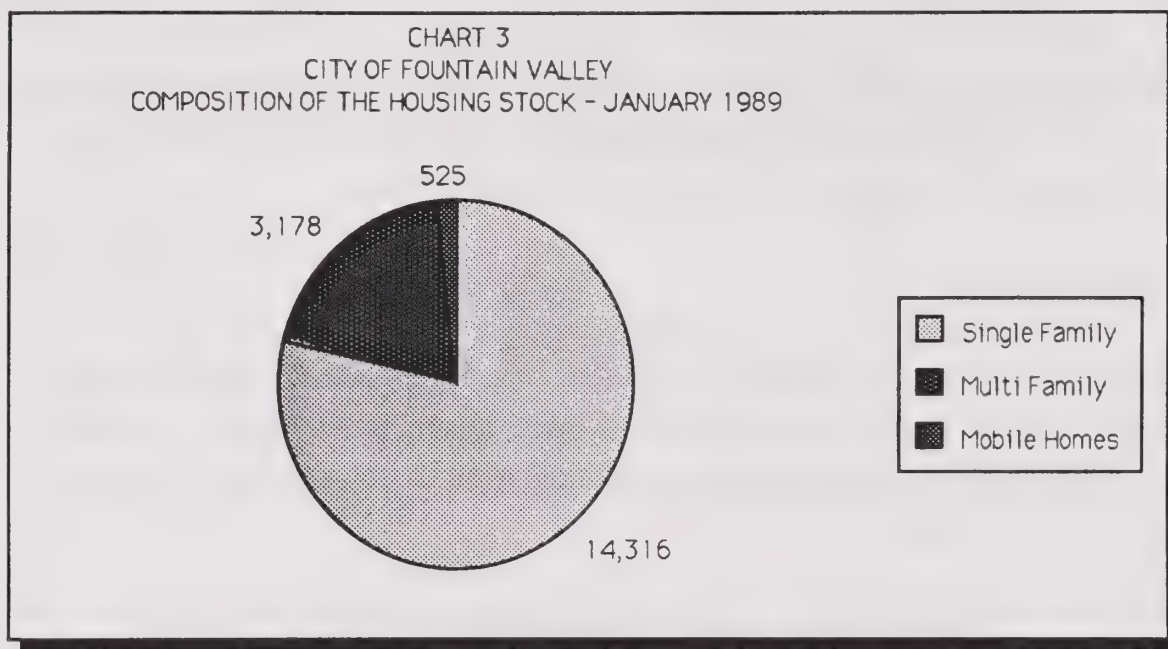
Housing Characteristics

As of January 1990, Fountain Valley had a housing stock comprised of 18,019 dwelling units and a population of 53,691. About 80% of the City's housing units are single-family dwellings; the complete breakdown is listed below in Table 9.

TABLE 9
COMPOSITION OF THE HOUSING STOCK: JANUARY 1990

<u>Housing Type</u>	<u>Number</u>	<u>Percent</u>
Single-Family		
Detached	12,224	67.8%
Attached	2,092	11.6%
Multi-Family		
2 to 4	462	2.6%
5+	2,716	15.1%
Mobile Homes	<u>525</u>	<u>2.9%</u>
	18,012	100.0%

Source: State Department of Finance, Housing Unit Estimates, January 1, 1989
Table construction by Castañeda & Associates.



Source: U.S. Census of Population and Housing, April 1990.

Overcrowded Households

Overcrowding is defined as housing units with 1.01 or more persons per room. In 1980, there were 411 households residing in Fountain Valley in overcrowded conditions. An estimated 2.5% of all the City's households were overcrowded in 1980. Between 1970 and 1980, the percentage of overcrowded households declined from 5% to 2.5%. According to the 1990 Census, the extent of overcrowding numerically increased during the last decade. Overcrowded households comprise 5.7% of all households in the City.

Housing Stock Condition

One aspect of the housing characteristics analysis is an evaluation of the condition of existing housing. Fountain Valley's housing stock is primarily in good to superior condition. According to the Housing Assistance Plan, the definitions of "substandard" and "substandard suitable for rehabilitation" are as follows:

- *Substandard: Any unit which does not meet or exceed existing Section 8 Housing Quality Standards or local building codes, whichever are stricter.*
- *Substandard Suitable for Rehabilitation: Units which are structurally sound and which may be rehabilitated at a cost not to exceed 90% of the projected market value after rehabilitation.*

The most recent HAP estimates 640 substandard housing units are suitable for rehabilitation and five are not suitable for rehabilitation. Of the substandard housing, 51.7% is owner-occupied and 48.3% is renter-occupied. Most of the City's substandard housing is located in Colonia Juarez and the Helm Tract.

SPECIAL HOUSING NEEDS

Section 65583 (a)(6) requires:

"Analysis of any special housing needs, such as those of the handicapped, elderly, large families, farm workers, families with female heads of household, and families and persons in need of emergency shelter."

Handicapped Households

The housing needs of handicapped households include, but are not limited to:

- Special design features to enhance housing accessibility.
- Financial housing assistance to bring housing costs within ability to pay.

It is estimated that there are 2,162 handicapped households residing in the City of Fountain Valley based on the following factors:

- Prevalence rate of 12% (mid-point of United Way (14%) and State (10%) rates, as reported below).
- January 1990 population estimate of 53,691 for Fountain Valley.
- Average household size of 2.98, as of January 1990.

The Federal Rehabilitation Act of 1973, Section 104.3 (j) defines a disabled person as "any individual who has a physical or mental impairment which substantially limits one or more major life activities, has record of such an impairment, or is regarded as having such an impairment". According to a county-wide needs assessment conducted by United Way in 1986, there are approximately 300,000 permanently disabled persons residing in Orange County. This is a prevalence rate of 14%. The United Way has not updated the survey since 1986.

The State Department of Rehabilitation estimates that there are approximately 230,000 Orange County residents who are physically disabled and 130,000 who are developmentally disabled. This Department was contacted to determine whether that agency maintains city specific data on handicapped persons. The State Department staff indicated that assumptions

could not be made from their client base as it represents only a portion of the handicapped individuals in each community. The Rehabilitation Department provides vocational rehabilitation to disabled youths and adults. The client base changes frequently and their housing needs vary greatly, depending on the disability. That agency suggested a guideline of approximately 10% handicapped in any given population.

The State Rehabilitation Institute was contacted regarding handicapped data. That agency provides out-patient rehabilitation and adult daycare. No data are kept on a city specific basis.

In 1988, the Dayle McIntosh Center for the Disabled conducted an Orange County-wide needs assessment to determine the highest areas of concerns among persons with disabilities. Housing was rated the number two concern of the 33 separate issues ranked by respondents. The two most prevalent housing needs for persons with disabilities are *accessibility and affordability*, according to the Dayle McIntosh Center. Individuals who are mobility impaired usually need housing that can accommodate wheelchairs or have level entry ways and no interior or exterior stairs.

Staff of the Dayle McIntosh Center was contacted for additional information regarding housing needs of the handicapped. The staff contacted indicated that most of the Center's clients are recipients of Social Security or Social Security Disability Insurance (SSDI). The majority are unable to work while some can work only part-time. Affordability is the greatest housing problem facing the handicapped, according to the DMC staff.

Another key concern is wheelchair accessibility. Legal requirements for handicapped access are fairly recent. Older housing, which is typically the only housing a handicapped person can afford, is not designed to accommodate a wheelchair. The Dayle McIntosh Center does not maintain data on the number of handicapped persons needs on a city specific basis. These factors can vary widely throughout the county. Client demographics for the 1988-1989 fiscal year are shown in Table 10. During that time, clients received 1,899 housing referrals and 198 clients were placed in permanent housing.

TABLE 10
DAYLE McINTOSH CENTER:
CLIENT DEMOGRAPHICS — 1988-1989

<u>Ethnicity</u>		<u>Age</u>	
White	76.1%	0 to 20	6.0%
Black	5.1%	21 to 40	45.0%
Hispanic	9.8%	41 to 60	29.0%
Asian	3.0%	61 +	17.0%
Native American	1.0%	Unknown	3.0%
Other ethnicities	2.0%		
Unknown	3.8%		
<u>Income Source</u>		<u>Gender</u>	
SSDI	12.0%	Male	49.3%
SSI	33.0%	Female	50.7%
AFDC/GA	5.0%		
VA/WC/Pension	5.0%		
Employment	17.0%		
Other Income	16.0%		
No Income	9.0%		
Unknown	3.0%		
<u>Consumers by Disability</u>		<u>Income Level</u>	
Physical	56.1%	Below Poverty	23.0%
Hearing	27.3%	At Poverty	49.0%
Mental	6.4%	Median Income	11.0%
Visual	5.9%	Above Median	7.0%
Developmentally		Unknown	10.0%
Disabled	4.3%		
Multiply Disabled	27.0%		
		<u>Place of Residence</u>	
		Anaheim	14.7%
		Garden Grove	11.2%
		Santa Ana	10.8%
		Huntington Beach	9.0%
		Orange	9.1%
		No address (homeless)	17.2%
		Other Orange County	26.0%
		Outside Orange County	3.0%

Source: Dayle McIntosh Center 1988-89 Statistical Report.

The Center for Vocational Education for the Handicapped estimates that only one third of the adult disabled population is employed. A majority of Orange County's handicapped residents' income fall below 50% of the County's median income. As recipients of SSDI, many disabled persons receive fixed incomes that average \$620 per month, which places them at a disadvantage when faced with inflation and rising home costs. Since most disabled persons cannot qualify for home ownership, they are forced into the already crowded rental housing market.

In 1985, the State of California adopted building regulations that required any privately funded development with five or more units of multi-family rental housing to include handicapped adaptability features for all accessible (ground floor) units. Until 1989, developers could apply for a hardship exemption if a maximum of \$650 per unit was spent in adapting units for handicapped access. Many developers applied the required funds to only one aspect of accessibility, such as an exterior ramp, but failed to take into account interior design. Required interior and exterior modifications cannot be accomplished at a cost of \$650 per unit.

In 1989, Title 24 of the California Code of Regulations was amended to repeal the cost cap. It is now more difficult to obtain a hardship exemption. The developer must show that the handicapped requirements cause the project to become financially infeasible or must prove that the modifications would necessitate the removal of major structural elements.

Mention should also be made of the need for residential facilities to house persons who are unable to live independently or who need supervision or skilled nursing care. There is a shortage of congregate care facilities, board and care homes, and convalescent centers in Orange County. Age appropriate placement is seldom possible. This is particularly crucial to the aging parents of adult disabled children or to newly disabled individuals who have not acquired the skills to maintain an independent lifestyle. The City of Fountain Valley, however, has a good selection of these residential care facilities.

Elderly Households

Many senior citizens have fixed incomes and experience financial difficulty in coping with rising housing costs. The financial capacity for coping with increased housing costs depends heavily on tenure; that is, the owner or renter status of the elderly households. With infrequent and small increases in income and potentially large increases in housing costs, the senior renter is at a continuing disadvantage compared to the senior owner.

According to the 1990 Census, there were 2,017 households residing in the City with a household head 65 years of age or older. This number of senior households amounts to 11.5% of all the City's households. According to the 1980 Census, the tenure distribution of senior households was: 77%, owner; and 23%, renter. In 1990, according to the Census, this same tenure distribution existed among the City's senior households.

TABLE 11
CITY OF FOUNTAIN VALLEY
AGE OF HOUSEHOLDER BY TENURE — 1990

Age Householder	Owner Occupied	Renter Occupied	Total Households	Percentage Distribution
15 to 24	80	365	445	2.6%
25 to 34	1,318	1,443	2,761	15.9%
35 to 44	3,298	1,052	4,350	25.0%
45 to 54	4,299	672	4,971	29.6%
55 to 64	2,514	349	2,863	16.4%
65 to 74	1,122	201	1,323	7.5%
75 years +	450	244	694	4.0%
Total:	13,081	4,326	17,407	100.0%

Source: 1990 Census of Population and Housing.

Table construction by Castañeda & Associates.

Orange County's Area Agency on Aging was contacted for additional insights on housing needs. That Agency indicated that 23% of the elderly live alone and 22% have at least one disability. Thus, home sharing programs may be of assistance to senior owner households living alone as well as special design features to accommodate physical disabilities in new and rehabilitated housing.

Large Families

Large families are defined as households with five (5) or more persons. The most recent data available on this characteristic is from the 1990 Federal Census. That data indicates that 15.3% of the City's total households had five or more persons, a decline from the 1980 Census. Almost 80% of the City's large families are homeowners. Some of the families would benefit from rehabilitation loans designed to increase home size and living space. According to the City's most recent Housing Assistance Plan, there are 80 lower-income, large-family households with rental assistance needs.

**TABLE 12
CITY OF FOUNTAIN VALLEY
HOUSEHOLD SIZE DISTRIBUTION — 1990**

<u>Household Size</u>	<u>Owner Occupied</u>	<u>Renter Occupied</u>	<u>Total Households</u>	<u>Percentage Distribution</u>
1	1,287	1,066	2,353	13.5%
2	3,822	1,285	5,107	29.3%
3	2,932	766	3,598	20.7%
4	3,015	666	3,681	21.2%
5+	<u>2,125</u>	<u>543</u>	<u>2,668</u>	<u>15.3%</u>
Total:	13,081	4,326	17,407	100.0%

Source: 1990 Census of Population and Housing.

Table construction by Castañeda & Associates.

Farm Workers

Farm workers are one of six special needs groups referenced in the State law. There were 144 residents employed in the "farming, forestry and fishing" occupations in 1980. This employment category is an indicator of farm workers and farmworker households. The distribution of the 144 workers is as follows:

•	Farm Managers	13
•	Other Farm Workers	6
•	Related Agriculture	121
•	Forestry and Logging	4
		144

Agriculture - related workers were a small percentage of employed residents. According to the 1983-88 Regional Housing Allocation Model, prepared by SCAG, the City had few farmworker households in need of housing assistance. Given the suburbanization of the City in the past six years, the farm worker housing assistance needs have probably decreased from the 1985 estimated.

Female Heads of Household

Data on female heads of household are available from recently published 1990 Census information. Of the City's total households (17,407), 3,374 or 19.0% were headed by a female. The distribution of these households is listed below:

√	1 person female household	1,353
√	2 person + family female householder	1,629
	With related children:	913
	With no related children:	716

Homeless

In September 1984, the Governor signed Assembly Bill 2579, adding "families and persons in need of emergency shelter" to the special needs groups to be considered in each jurisdiction's housing element. According to the Technical Assistance report prepared by the State Department of Housing and Community Development, the needs assessment includes the following considerations:

1. An estimate or count of the daily average number of persons and families in the locality lacking permanent shelter.
2. A count of the number and type of shelter beds, hotel/motel vouchers, and units of transitional housing currently available in the locality.
3. An estimate derived from the figures described above of the number of additional shelter beds, shelters, and transitional housing units needed by type of need.

Site identification became a requirement, effective January 1, 1988, or the next periodic update of the housing element pursuant to Government Code Section 65588, whichever is later. Housing element law requires an "identification of adequate sites which will be made available through appropriate zoning and development standards and with public services and facilities needed to facilitate the development of emergency shelters and transitional housing" (Government Code Section 65583 (c)(1)).

According to the D/HCD, localities should use the Uniform Housing Code (UHC) Space and Occupancy Standards, which apply to shelters. These standards specify, for example, that sleeping accommodations for 2 persons require a minimum of 70 square feet of space and an additional 50 square feet of space for each additional person.

Any of the following could meet the adequate sites requirement for a need of no more than 10 to 20 persons: apartments, mobilehomes, recreational vehicles with hook-ups, units in a single-room occupancy structure (SRO), a large single-family unit, church facilities, commercial, or other multi-use facilities.

For a need greater than 20 persons, one or more of the following strategies would satisfy the site requirements; a program to help increase the capacity of existing shelters; identification of suitable structures such as warehouses, schools, or hotels that could be used as, or converted to, shelters; identification of specific sites which have the potential for shelter or transitional housing development during the planning period of the housing element (e.g., sites identified in a shelter ordinance); or establish a shelter-transitional housing zone or zones.

To estimate the number of homeless persons in Fountain Valley, the Police Department and the Community Services Department were contacted. The Police Department was not aware of any concentrations of homeless persons in the city. Police Department staff indicated that Fountain Valley does not have transportation centers such as bus or train terminals, which are often focal points for homeless persons in transit. The Community Services staff indicated that they rarely receive requests for emergency shelter. Such requests are referred to various service agencies located in Santa Ana, particularly the Salvation Army shelter.

Other data consulted to quantify need was gathered from a 1989 survey completed by the Orange County Homeless Task Force, a volunteer committee that seeks solutions to homelessness. The survey focused only on those seeking help from certain agencies; the findings of this report cannot be projected to the entire homeless population.

Respondents were asked to state their last permanent address. Some of the cities represented in the survey have a disproportionate number of motels, which some respondents may refer to as a permanent address. Respondents listed 30 cities and unincorporated areas in Orange County in which they had last resided before becoming homeless. There were also addresses outside of Orange County, Southern California, California, and the United States given. As indicated by the survey, six respondents or 0.6% of the survey sample listed Fountain Valley as their last permanent address. This represents a very small proportion of the homeless population. The largest concentrations of homeless persons are in Santa Ana and Anaheim.

Service providers located adjacent or near Fountain Valley include: Thomas House, Orange Coast Interfaith Shelter and Salvation Army Hospitality House. A summary of the services provided by these organizations is presented in the following paragraphs.

1. Thomas House, an emergency shelter for families, has a Fountain Valley mailing address but operates in Garden Grove. This all-volunteer program is funded by private donations. Thomas House rents apartments for homeless families. Since 1987, service has been provided to approximately 600 persons. During that time, three or four families listed Fountain Valley as their last address.
2. The Orange Coast Interfaith Shelter in Costa Mesa is the closest facility that provides both emergency shelter (seven days) and transitional housing (two months). The shelter utilizes a 9-unit apartment complex to serve 65-70 people. Remodeling is in progress to expand the shelter capacity to approximately 100 persons. Orange Coast Interfaith maintains a record of each client's last residence by city. The quarterly report from October 1, 1989 to December 31, 1989 indicates that one person listed Fountain Valley as his previous residence.
3. Salvation Army Hospitality House in Santa Ana provides emergency shelter for a maximum of three nights. Many of their clients are from out of state. The shelter is located in proximity to a Greyhound Bus terminal, which generates many clients. The majority of clients are single men. The shelter also serves single women and families. Maximum capacity is approximately 50 persons. Hospitality House has no tabulated data regarding the previous residence of their clients.

There is a small need generated within Fountain Valley; existing resources, including vacant apartments and mobilehomes, churches and shelter providers appear sufficient to address the needs. In addition, the City is exploring funding of an SRO facility with CDBG carry-over funds.

4.
SITE AVAILABILITY

INTRODUCTION

Section 65583 (a)(3) of the Government Code requires that the Housing Element include a site availability analysis with respect to:

- An inventory of land suitable for residential development, including vacant sites and sites having potential for redevelopment.
- An analysis of zoning in relationship to those sites.
- Adequacy of public services and facilities to the sites.

Inventory of Land Suitable for Residential Development

Overview

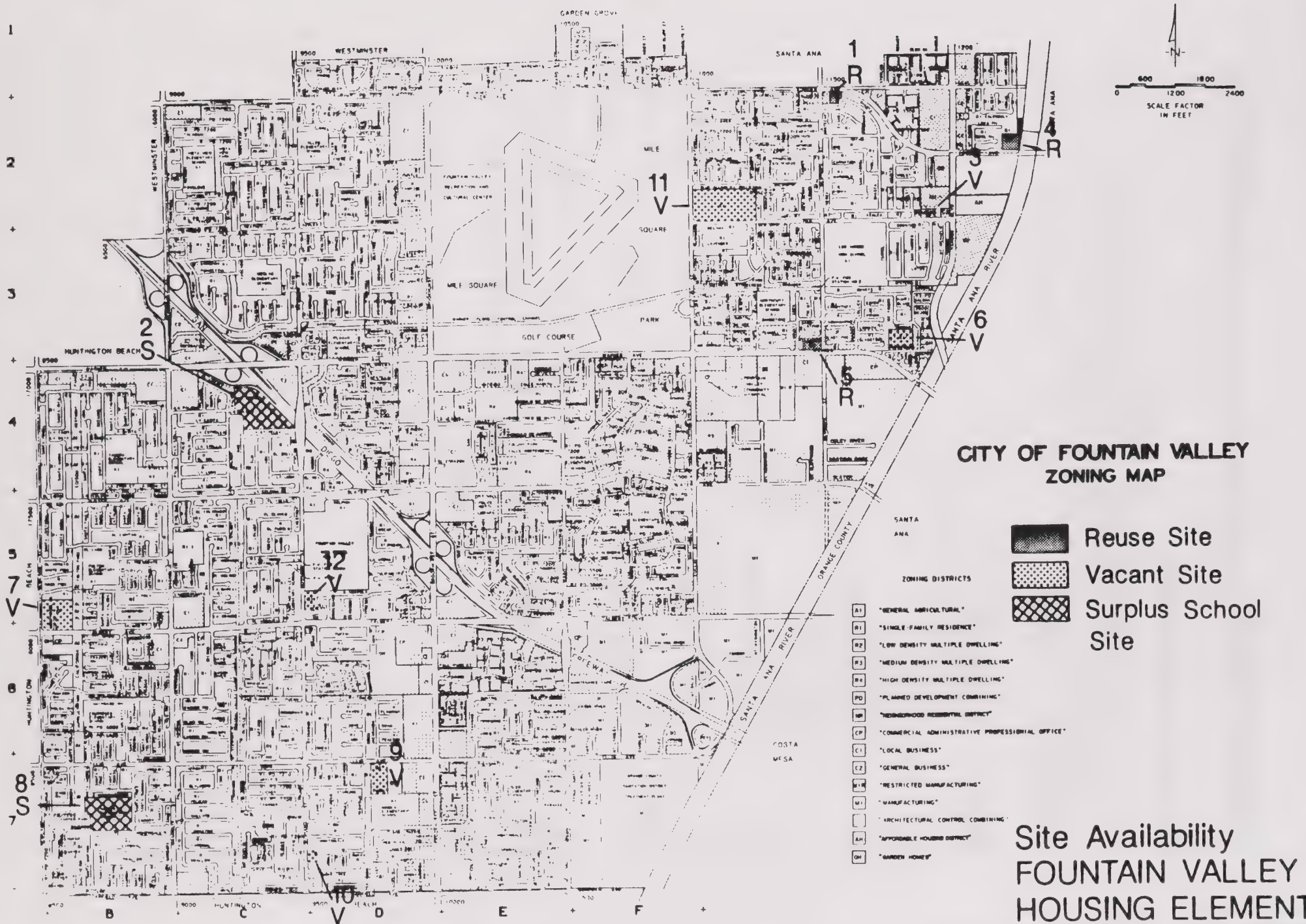
This sub-section presents information explaining the availability of residential land and sites to accommodate the amount of new housing production projected for Fountain Valley. According to the 1961 General Plan, 2,600 acres were allocated to residential land use. Since the adoption of the original General Plan, there have been several Amendments. Because these Amendments have not been mapped or quantified, it is not possible at this time to project the City's residential holding capacity.

Vacant Sites

Vacant sites are extremely limited in the City. As part of the General Plan Update a complete inventory of sites in the City was completed. This inventory included both vacant sites and sites that could be recycled to residential land use. The sites are shown on Exhibit 3.

Redevelopment Sites

Existing redevelopment project areas are shown on Exhibit 3. The two project areas are: City Center and Industrial. While the redevelopment project areas do not offer residential site opportunities, the 20% set-aside Low and Moderate Income Housing Fund presents opportunities for addressing housing needs.



Recycling Development Potential

The following 12 parcel sizes are coordinated with the site numbers identified on the Site Availability Map. The City's recycling potential is achievable on one or more of the 12 sites identified below:

<u>Site No.</u>	<u>Existing Use</u>	<u>Site Size</u>
1	Residential/Commercial	1.85 acres
2	School	14.75 acres
3	Petrolane	.96 acres
4	Residential	1.76 acres
5	Agricultural/Residential	1.31 acres
6	Stable (vacant)	4.55 acres
7	School	8.6 acres
8	School	14.0 acres
9	Agricultural (vacant)	4.11 acres
10	Vacant	3.0 acres
11	Agricultural	18.63 acres
12	Nursery (vacant)	<u>1.67 acres</u>
TOTAL:		75.19 acres

On the sites listed in Table 12A, there is the potential for 479 housing units in three density categories. In addition to this level of development, 20 to 40 housing units are expected to be built in Affordable Housing Zone and 40 to 80 on the City's Petrolane site. Therefore, the total site availability potentially is 599 dwellings.

**TABLE 12A
CITY OF FOUNTAIN VALLEY: HOUSING CAPACITY OF
RECYCLING DEVELOPMENT POTENTIAL**

<u>Site</u>	<u>Site Size (acres)</u>	<u>LD¹</u>	<u>LM²</u>	<u>HD³</u>
1	1.85	----	----	37
2	14.75	73	----	----
3	.96	----	----	19
4	1.76	9	----	----
5	1.31	6	----	----
6	4.55	22	----	----
7	8.6	----	86	----
8	14.0	70	----	----
9	4.11	----	41	----
10	3.0	15	----	----
11	18.63	93	----	----
12	1.67	8	----	----
TOTAL:	75.19	296	127	56

Source: City of Fountain Valley, General Plan Advisory Committee, Preferred Land Use Alternatives, 1991.

- ¹ @ 5 dus/ac
- ² @ 10.8 dus/ac
- ³ @ 20 dus/ac

5. GOVERNMENTAL CONSTRAINTS

GOVERNMENTAL CONSTRAINTS

Section 65583(a)(4) of the Government Code mandates an analysis of how governmental factors affect the maintenance, improvement and development of housing for all income groups. The relevant legislation cites the following potential or actual constraints:

- Land use controls (Land Use Element and Zoning);
- Building codes and their enforcement;
- Site improvements;
- Fees and other exactions; and
- Local processing and permit procedures.

Land Use Controls

Land Use Element

Four residential land use categories are designated by the Land Use Element.

Single-Family:	5 dwelling units per acre generally 7,200 square foot lots.
Low-Medium:	6-10.8 dwelling units per acre generally for development of smaller lot single family residences, two-family dwellings, multi-family dwellings, and apartments.
Medium Density:	10.8-15 dwelling units per acre for development of duplexes and other attached and detached dwellings.
High Density:	20 dwelling units per acre to allow multi-residential structures.
Density Bonus:	Residential projects with a density of up to 25 dus/acre are permitted pursuant to the State density bonus law.

Zoning Code

Fountain Valley's zoning code provides for 10 residential zones as listed below:

- A1 General Agricultural
- AH Affordable Housing
- R1 Single Family Residence
- NR Neighborhood Residential
- R2 Low Density Multiple Family
- R3 Medium Density Multiple Dwelling
- R4 High Density Multiple Dwelling
- GH Garden Homes
- RE Residential Estate (*may be eliminated*)
- PC Planned Community

These zones permit a wide range of housing types to be developed within the community including single family dwellings, apartments, condominiums, cluster developments, mobile homes, bungalows, senior citizen developments, family care homes, and homes for the aged. However, some of these uses such as bungalow, community apartment project, senior citizen development, and rest homes are not defined in the zoning code.

Table 13 summarizes development standards for the various residential zones. The maximum height limit of 35' precludes any high-rise residential development in Fountain Valley. Seven of the zones have minimum living area requirements, which is a limiting factor to the construction of smaller, more affordable units in these zones. Such units could provide housing for the elderly and single room occupancy units for low income persons, including the handicapped. The zoning code does not contain special development standards for senior housing nor does it contain provisions for second units.

In the AH, GH, and PC zones, all permitted uses and development standards are established through the Conditional Use Permit process. This allows for greater flexibility of housing development options but does not present any clear direction to developers.

**TABLE 13
RESIDENTIAL ZONING STANDARDS**

Zone	Permitted Res. Uses	Minimum Lot Area	Maximum Building Height	Minimum Yards				Parking
				Front	Side	Rear		
A1-General Agricultural	<ul style="list-style-type: none">• S.F. Dwellings	43,560 sq. ft.	35'	20'	5'	10'-25'	2 spaces	
AH-Affordable Housing	<ul style="list-style-type: none">• Garden Homes (CUP)• Townhouses (CUP)• Condominiums (CUP)• Community Apartment Projects (CUP)• Bungalow Courts (CUP)• Apartment Houses (CUP)• Senior Citizen Developments (CUP)• Homes for the Aged (CUP)• Rest Homes (CUP)	5 acres	35'	---	---	---	2 spaces per 1,000 ft. of habitable living area.	
R1-Single Family Residence	<ul style="list-style-type: none">• S.F. Dwellings• Mobile Homes• Family Care or Group Homes (CUP)	7,200 sq. ft.	35'	20'	5'	10'-25'	2 spaces	
NR-Neighborhood Residential	<ul style="list-style-type: none">• S.F. Dwellings• Mobile Homes• Family Care or Group Homes (CUP)	6,000 sq. ft.	35'	20'	5'	10'-25'	2 spaces	
R2-Low Density Multiple Dwelling	<ul style="list-style-type: none">• One-Family Dwelling• Two-Family Dwellings• Multiple-Family Dwellings• Dwelling Groups• Apartment Houses• Rest Homes (CUP)• Family Day Care Group Homes (CUP)	7,200 sq. ft.	35'	20'	5'	25'	Back + 1 bdrm-1 garage space + 1/2 open space. 2 bdrm. unit-1 garage space + 1 open space. 3 or more bdrm.-2 garage spaces + 1/2 open space. 1 guest space	

Zone	Permitted Res. Uses	Minimum Lot Area	Maximum Building Height	Minimum Yards				Parking
				Front	Side	Rear		
R3-Medium Density Multiple Dwelling	<ul style="list-style-type: none"> • Two-Family Dwellings • Multiple-Family Dwellings • Dwelling Groups • Apartment Houses • Rest Homes (CUP) • Family Care or Group Homes (CUP) • Condominiums (CUP) • Stock Co-op (CUP) 	7,200 sq. ft.	35'	20'	5'	25'		Back + 1 bdrm.- 1 garage space + 1/2 open space. 2 bdrm. unit- 1 garage space + 1 open space. 3 or more bdrm.- 2 garage spaces + 1 open space. 1 guest space for each 4 units.
R4-High Density Multiple Dwelling	<ul style="list-style-type: none"> • Two-Family Dwellings • Multiple-Family Dwellings • Dwelling Groups • Apartment Houses • Rest Homes (CUP) • Family Care or Group Homes (CUP) • Condominiums (CUP) • Stock Co-op (CUP) 	10,000 sq. ft.	35'	20'	5'	25'		Back + 1 bdrm.- Apt.-1 space. 2 bdrm. apt.- 1-1/2 spaces. 3 or more bdms.- 2 spaces.
GH-Garden Home	<ul style="list-style-type: none"> • Garden Homes (CUP) • Townhouses (CUP) • Condominiums (CUP) • Community apt. projects (CUP) • Bungalow Courts (CUP) • Apartment Houses (CUP) • Senior Citizen Developments (CUP) • Rest Homes (CUP) • Homes for the Aged (CUP) 	5 acres	30'	—	—	—		Back + 1 bdrm.- 1 garage space + 1/2 open space. 2 bdrm. unit- 1 garage space + 1 open space. 3 or more bdrm.- 2 garage spaces + 1 open space. 1 guest space for each 4 units.
RE-Residential Estate	<ul style="list-style-type: none"> • S.F. Dwellings 	12,000 sq. ft.	35'	30'	10'	30'		2 spaces

TABLE 14
RESIDENTIAL DEVELOPMENT STANDARDS

Zone	Bachelor	Minimum Enclosed Living Area				More Than 4 Bedrooms
		1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom	
A1	-----	1,150 sq. ft.	1,225 sq. ft.	1,400 sq. ft.	1,525 sq. ft.	100 sq. ft. per each additional bedroom or den.
R1	-----	1,150 sq. ft.	1,225 sq. ft.	1,400 sq. ft.	1,525 sq. ft.	100 sq. ft. per each additional bedroom or den.
NR	-----	1,150 sq. ft.	1,225 sq. ft.	1,400 sq. ft.	1,525 sq. ft.	100 sq. ft. per each additional bedroom or den.
R2	500 sq. ft.	750 sq. ft.	950 sq. ft.	1,150 sq. ft.	-----	100 sq. ft. per each additional bedroom or den.
R3	500 sq. ft.	750 sq. ft.	950 sq. ft.	1,150 sq. ft.	100 sq. ft.	100 sq. ft. per each additional bedroom or den.
R4	500 sq. ft.	750 sq. ft.	950 sq. ft.	1,150 sq. ft.	100 sq. ft.	100 sq. ft. per each additional bedroom or den.
RE	2,000 sq. ft. for all residential structures.					

The Affordable Housing zone is intended to encourage the integration of affordable housing within projects and areas that also provide market rate housing. Residential projects developed under the AH districts must provide at least 20% of the units as affordable units. The maximum density is 20 dwelling units per acre unless a) 25% or more of the units are for moderate or low income families; b) at least 10% of the total units are for low income families. Under these conditions, a 25% density bonus is allowed.

According to the Zoning Code: "Affordable housing unit: means a for-sale unit that is sold to and occupied by a household with income at or below one hundred twenty percent of the Orange County median family income as adjusted from time to time; a rental unit for which the monthly payment does not exceed thirty percent of the household income for households with income at or below one hundred twenty percent of the Orange County median family income as adjusted from time to time."

The Planned Community zone is intended for large scale planning projects. Uses and development standards are determined by the approval of a specific plan.

There is sufficient diversity and flexibility within the residential zones to facilitate a mix of housing products that will serve residents of various socio-economic levels and provide for the housing of special needs groups.

The Garden Homes zone is intended to achieve greater land use flexibility on large tracts of land. The minimum parcel size is five acres and project density cannot exceed 10.8 dwelling units per gross acre. Maximum permitted building coverage is 30%. The development must provide at least 1,800 square feet for each garden home. The code defines garden home as synonymous with townhouse, indicating a cluster type development. This zone permits both ownership and rental development products (apartments, condominiums, senior housing) as well as care facilities such as rest homes. Development standards are flexible, determined through the CUP process.

Building Codes and Enforcement

1988 Uniform Building Code adopted; no local amendments. Existing housing governed by substandard housing sub-section of the Uniform Building Code. Housing code enforcement is done on complaint basis and staff also conducts code enforcement activities by field surveys.

Site Improvements

New resident development of Fountain Valley is limited due to the scarcity of vacant land. At the present time, there is only one active residential tract in the City. In the years ahead, new development requiring site improvements, may occur on recycled commercial and surplus school property. At that time site improvements will be imposed per normal and/or in conjunction with a Specific Plan of development. In comparison to land and other housing costs, site improvements are not considered to be a major constraint.

Fees

The City's fee schedule is outlined in Table 14 and is not particularly high. Although the school district does have surplus property, it is assumed that a \$1.58 per square foot fee is charged pursuant to State law. The City also charges a development impact fee based on 3% of assessed valuation. This fee may be waived for affordable housing developments.

Processing and Permit Procedures

Processing time and related permit procedures of the City are not lengthy or cumbersome. As listed below, the processing time for major applications is very efficient.

GPA	90-120 days
Zone Change	90-120 days
Tentative Tract Map	Processed concurrently
Final Tract Map	Processed concurrently

TABLE 14
APPLICATION FEE SCHEDULE

<u>Application</u>	<u>Fee</u>
Zone Change	\$1,000
Precise Plan	1,050
Conditional Use Permit	650
CUP Transfer of Ownership	250
Variance - Planning Commission	650
Variance - Area Variance Committee	200
Tentative Tract	650 + \$15/lot
Lot Split	750 + \$34/hour
Sign Review - Planning Commission	100
Sign Review - Staff	25
Planning Commission Interpretation	250
Planning Commission Ordinance Amendment	500
Environmental Impact Report	Cost* + \$32/hour**
Negative Declaration	150
Notice of Exemption	50
Specific Plans	Cost* + \$32/hour**
Modification to Conditions	250
<u>Extension of Time</u>	<u>1/2 original fee</u>

Note: * Consultant cost
 ** Staff processing costs

Public Services and Facilities

Another possible constraint that must be reviewed, pursuant to State law is the availability and adequacy of public services and facilities to new residential development sites. As previously indicated, the opportunities for new housing developments in Fountain Valley are limited and, in consequence, so would be the demands on services and facilities. The list below identifies the suppliers of public services and facilities in Fountain Valley.

Water Supply:

Name of Supplier: Fountain Valley Municipal Water System

Maximum pumping capacity: 42 million gal./day.

Average consumption: 12 million gal./day.

Cost per unit (750 gallons) in quantities of 15,000 gal./month: \$0.76.

Cost per unit (750 gallons) in quantities of 150,000 gal./month: \$0.68.

Water connection charges: varies with location and meter size.*

Sewer Service:

Name of Supplier: Fountain Valley-Orange County Sanitation District.

Average daily flow: 6 million gal./day.

Sewer Assessment Fee: Yes. On what basis rated? Excessive use.

Type of treatment plant: Primary and Secondary.

Any facilities for non-recoverable industrial waste water: No.

Sewer connection charges: \$350.00 per acre (City)

\$2,270 per residential dwelling

\$450/1,000 s.f. commercial (County Sanitation Dist.)

Storm Drains and Flood Control:

Master plan for storm drains adopted.

Charges assessed on following basis: \$2,750/acre.

Street Improvements:

Dedication requirements: 60' min. to 100' max. property line to property line.

Improvement requirements: 40' min. to 84' max. Curb-to-curb, full curb, gutter and paving to centerline or street required in conjunction with development.

Natural Gas:

Name of Supplier: Southern California Gas Company.

For rates applicable to the City of Fountain Valley contact the Huntington Beach office located at 311 Main Street, Huntington Beach, CA 92646.

Phone No. (714) 835-0221.

Electric Power:

Name of Supplier: Southern California Edison Company.

For rates applicable to the City of Fountain Valley contact Huntington Beach office located at 19692 Beach Boulevard, Huntington Beach, CA 92648.

Phone No. (714) 835-5200.

Telephone:

Name of Suppliers: Pacific Bell and General Telephone Company.

For rates and types of service applicable to the City of Fountain Valley contact the Santa Ana office of Pacific Bell, located at 1230 E. 17th Street, Santa Ana, CA
Phone No. (714) 972-7711.

General Telephone Company, located at 16742 Gothard, between Hall and Warner, Huntington Beach, CA 92647.

Police Department:

City of Fountain Valley Personnel: 80 full-time employees.

Equipment: 18 patrol cars, 6 detective cars, and 2 administrative cars, 1 transport vehicle, 1 CSI vehicle, 2 parking control cars.

Fire Department:

40 full-time employees.

Equipment: 1 truck, 2 engines, 1 paramedic van, 1 reserve engine, 1 paramedic reserve van.

Joint Power Agreement with Huntington Beach, Westminster, Seal Beach, Newport Beach, and County of Orange.

6.
NON-GOVERNMENTAL
CONSTRAINTS

NON-GOVERNMENTAL CONSTRAINTS

Section 65583 (a)(5) of the Government Code requires that a local housing element incorporate an analysis of potential and actual non-governmental constraints including:

- Availability of financing;
- Price of land; and
- Cost of construction.

Availability of Financing

According to the State Department of Housing and Community Development, the analysis of the availability of financing should consider whether financing is generally available, whether interest rates are significantly different from surrounding areas, and whether there are under-served areas or income groups in the community for new construction or rehabilitation loans. The D/HCD indicates knowledge of this will assist the community to select and implement responsive housing programs such as mortgage revenue bonding, a mortgage credit certificate program, and targeted low-interest rehabilitation loans.

Contact was made with several lending institutions to request information available from Home Mortgage Disclosure Act (HMDA) and Community Reinvestment Act (CRA). This information, based on the replies of three financial institutions, is included in the Technical Appendix. A brief summary of the findings is presented in the following paragraph.

One institution reported issuing loans to homes located in 11 of the City's census tracts. The number of loans issued per census tract ranged from a low of two to a high of eight. A second financial institution made loans in 11 census tracts, ranging from a low of four to a high of 20 on a per census tract basis. The third institution issued loans in 10 tracts. The number of loans per census tract ranged from a low of two to a high of six. These data indicate that financing is available throughout the City of Fountain Valley. The 11 of 15 census tracts encompass the vast majority of all residential land within Fountain Valley. The balance of four census tracts are split with other cities and contain only a small percentage of the City's housing stock.

Price of Land

Land is the highest cost factor of the price tag on a new home in Orange County. Almost 37% of the cost of a new home consists of the land purchase as summarized in Table 15.

TABLE 15
ORANGE COUNTY: COST COMPONENTS
OF A NEW TRACT HOME — 1989*

<u>Cost Component</u>	<u>Price</u>	<u>Percent of Total</u>
Property Taxes	\$2,850	1.0%
Model Expenses	3,420	1.2
Common Areas	4,389	1.5
Planning, Field Supervision	7,894	2.8
Marketing	9,975	3.5
Overhead	11,628	4.1
Financing	19,950	7.0
Pre-Tax Profit	21,831	7.7
Lot Preparation	21,916	7.7
Fees, Permits	23,683	8.3
Construction	52,098	19.8
Land Purchase**	<u>105,165</u>	<u>36.9</u>
	\$285,000	100.0%

* Analysis based on 1,900 square foot home, built on a 6,000 square foot lot; land purchased and developed in same year.

** Developers who bought land in earlier years would have paid less for land and made a larger profit.

Source: Preview Company, Newport Beach.

Cost of Construction

Construction costs are the second highest cost component of new housing. Construction costs are the total cost to the developers exclusive of profit, but including fees, materials, labor and financing. These costs vary depending on the size, roofing materials, carpeting and other features. Because of this, it is difficult to establish an absolute measure of construction costs. However, an estimation of construction costs can be made by tracking the relative changes in construction costs over time.

Trends in single-family construction costs in the Los Angeles area from 1975 to 1989 are shown in Table 16 and Chart 6. During this period single-family home construction costs have increased 131 percent. A home that cost \$29,302 to construct in 1975 could cost \$67,700 to construct in 1989. These construction cost trends are compiled by Marshall and Swift Company, and are published by the Real Estate Research Council of Southern California. Costs are monitored for a one-story, three bedroom, two bath, wood frame single family residence with an attached two-car garage. The prototypical single-family residence is 1,570 square feet in size with an attached garage of 447 square feet.

The per unit construction cost for single-family homes is about \$43 per square foot. This includes materials, permits and fees, except land costs and profits. Thus, the construction costs of a 1,570 square foot home are estimated to be \$67,700 in 1989.

Apartment housing construction cost trends are presented in Table 17 and Chart 7. The apartment cost increases are comparable to the single-family trends; that is, construction costs have more than doubled between 1975 and 1989.

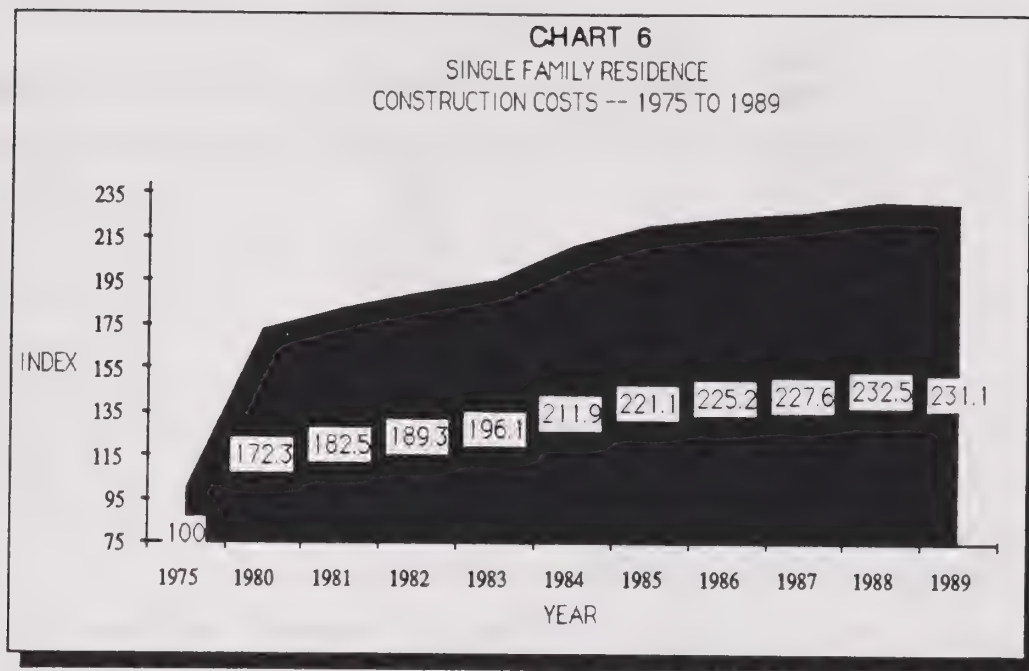


TABLE 16
SINGLE FAMILY RESIDENCE * CONSTRUCTION COSTS
1975 TO 1989

<u>Year</u>	<u>Total Cost</u>	<u>Square Foot Cost</u>	<u>Index</u>
1975	\$29,302	\$18.66	100.0
1980	\$50,497	\$32.16	172.3
1981	\$53,487	\$34.07	182.5
1982	\$55,483	\$35.34	189.3
1983	\$57,450	\$36.59	196.1
1984	\$62,100	\$39.55	211.9
1985	\$64,800	\$41.27	221.1
1986	\$66,000	\$42.04	225.2
1987	\$66,700	\$42.48	227.6
1988	\$68,100	\$43.40	232.5
1989**	\$67,700	\$43.14	231.1

Source: Marshall and Swift Company
Table construction by Castañeda & Associates.

* A theoretical single-family residence is used for the Los Angeles area residence construction cost trend information. An average quality, one-story, three-bedroom, two-bath, wood frame, single-family residence with an attached two-car garage. The size is 1,570 square feet for the home and 447 square feet for the garage.

** As of January in each year.

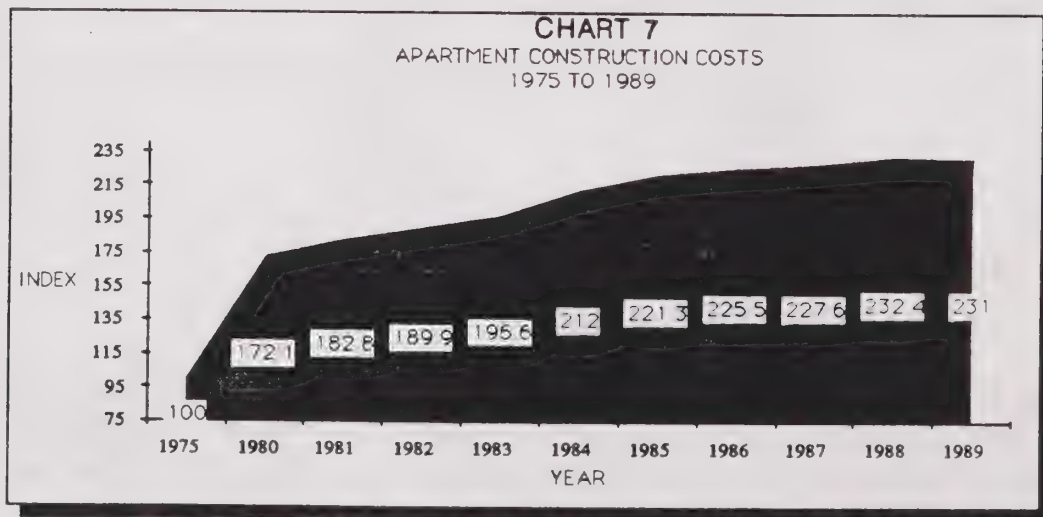
TABLE 17
APARTMENT CONSTRUCTION COSTS: 1975 TO 1989

<u>Year</u>	<u>Total Cost</u>	<u>Low Rise Building* Sq. Foot Cost</u>	<u>Index</u>
1975	\$372,511	\$15.52	100.0
1980	\$641,000	\$26.71	172.1
1981	\$681,047	\$28.38	182.8
1982	\$707,472	\$29.48	189.9
1983	\$732,500	\$30.52	196.6
1984	\$789,800	\$32.91	212.0
1985	\$824,300	\$34.35	221.3
1986	\$840,100	\$35.00	225.5
1987	\$847,900	\$35.33	227.6
1988	\$865,700	\$36.07	232.4
1989	\$860,500	\$35.85	231.0

Source: Marshall and Swift Company
Table construction by Castañeda & Associates.

*A prototypical low-rise Class D apartment building is a three-story, wood-frame, stucco apartment house with 28 one and two bedroom units, laundry room, and small lobby. Costs do not include elevator, garages, or site improvements.

*A three-story hypothetical frame and stucco apartment house, rectangular in area, 64' x 125', with 28 one and two bedroom units, laundry room, and small lobby. Costs do not include elevator, garages, or site improvements. Structure is of average construction and finished with carpeting in halls and living areas and vinyl asbestos tile in kitchens and baths. The heating is from electric cable in the ceiling. All interior finish is 1/2" gypsum board, taped and painted. Floor structures are 1-1/2" foamed concrete on 5/8" plywood and wood joists. Roof is three-ply, hot mopped, with gravel surface. Cooling is handled by three-quarter and one ton through-wall units.



Market Constraints

The market constraints analysis includes an overview of prevailing housing costs in the new home, resale, apartment and mobile home markets. The market data are current as of mid-year 1990.

New Home Market

The development and sale of new housing in Fountain Valley is limited at the present time. The single active development in the City is offering homes in the cost category of \$490,000+. Other pending developments are projected to produce housing in the half million dollar range and above. As school and commercial sites recycle in the future, the new home market is likely to be more extensive in number as compared to current market conditions. However, the price of the new housing probably will be out of the economic means of moderate income, first-time home buyers.

Resale Homes

The sale of existing homes in Fountain Valley offer a fuller range of housing prices. By way of illustration, an inventory was completed of resale home activity in early June 1990. That inventory revealed existing homes for sale in the price range of \$145,900 to \$445,000. Altogether five homes were for sale in the price range of \$300,000 or less. Thus, existing housing in the resale market clearly is more affordable than new homes but still too costly for many moderate income, first-time buyers. The complete data are summarized in Table 18.

Apartment Rental Housing

A survey of apartment housing in the City was completed in June 1990. The survey which encompassed almost 2,500 housing units, indicated that no units rented for less than \$650 a month. The median rent in Fountain Valley is about \$755 per month. Thus, the City has a representative stock of apartment rental housing, although the rent levels exceed the Section 8 rent level limits and thereby limits the potential for use of this housing assistance program. Refer to Table 19 and the Technical Appendix C for details of the apartment housing survey.

TABLE 18
INVENTORY OF RESALE HOMES — JUNE 1990

<u>PRICE</u>	<u>NUMBER OF BEDROOMS</u>	<u>TYPE</u>
\$145,900	3 bedroom, 2.5 bath	S.F.
\$148,000	3 bedroom, 1.5 bath	S.F.
\$237,900	4 bedroom, 1.75 bath	S.F.
\$254,900	2 bedroom, 2 bath	T.H.
\$277,900	4 bedroom, 1.75 bath	S.F.
\$305,000	4 bedroom, 2.75 bath	S.F.
\$309,900	4 bedroom, 2.5 bath	S.F.
\$314,900	5 bedroom	S.F.
\$315,000	3 bedroom, 3 bath	S.F.
\$315,000	4 bedroom, 2 bath	S.F.
\$318,000	3 bedroom, 1.75 bath	S.F.
\$319,000	3 bedroom, 2.5 bath	S.F.
\$339,000	4 bedroom, 3 bath	S.F.
\$389,000	4 bedroom, 2.5 bath	S.F.
\$394,900	4 bedroom, 2.75 bath	S.F.
\$399,900	4 bedroom, 2.5 bath	S.F.
\$409,000	4 bedroom, 2.5 bath	S.F.
\$427,000	4 bedroom, 2.5 bath	S.F.
\$427,000	5 bedroom, 3 bath	S.F.
\$428,000	5 bedroom	S.F.
\$439,000	4 bedroom, 2.5 bath	S.F.
<u>\$445,000</u>	<u>4 bedroom, 4 bath</u>	<u>S.F.</u>

Source: Inventory of resale home prices conducted by Castañeda & Associates, June 1990.

Single-Family Rentals

Another important component of the rental housing market, particularly for large families, is single-family rentals. In late September 1990, available data revealed four SF and one townhouse rental. The SF monthly rents ranged from \$1,250 to \$1,750 while the townhouse had a monthly rent of \$1,375. Thus, SF rentals are generally out of the economic reach of low income and most moderate income households. They do offer an important resource for moderate income families with space needs not met by apartment rentals.

TABLE 19
CITY OF FOUNTAIN VALLEY
APARTMENT MONTHLY RENT DISTRIBUTION (JUNE 1990)

<u>Monthly Rent</u>	<u>1-Bedroom</u>	<u>2-Bedroom</u>	<u>3-Bedroom</u>	<u>Total</u>	<u>Percentage Distribution</u>
\$650-699	685			685	28.2%
\$700-749	515			515	21.3%
\$750-799	50	323		373	15.4%
\$800-849		384		384	15.8%
\$850-899		198		198	8.1%
\$900-949		140		140	5.7%
<u>\$950-999</u>	<u>130</u>	<u>8</u>	<u>8</u>	<u>138</u>	<u>5.5%</u>
Total:	1,250	1,175	8	2,433	100.0%
Vacancies:	15	20	-0-	35	

Source: Apartment housing survey conducted by Castañeda & Associates, June 1990.

Mobile Home Housing

The City has two mobile home parks which include 374 spaces/mobile home units. One park is almost exclusively senior-oriented while the second serves a broader range of households. The average space rents were \$300-\$310 for one park and \$500 or more in the second park. The complete details are found in the Technical Appendix.

7.
GOALS, POLICIES, AND
OBJECTIVES

INTRODUCTION

Section 65583 (b) of the Government Code requires:

“A statement of the community’s goals, quantified objectives, and policies relative to the maintenance, improvement, and development of housing.”

The following definitions, developed by the State D/HCD, provide guidance on the meanings of these terms:

“Goals are general statements of purpose. Housing element goals will indicate the general direction that the jurisdiction intends to take with respect to its housing problems. While reflecting local community values, the goals should be consistent with the legislative findings (Section 65580) and legislative intent (Section 65581) of Article 10.6 and other expressions of state housing goals contained in the housing element law. Goals may extend beyond the time frame of a given housing element.

Policies provide a link between housing goals and programs; they guide and shape actions taken to meet housing objectives.

Quantified objectives are the maximum actual numbers of housing units that the jurisdiction projects can be constructed, rehabilitated, and conserved over a five-year time frame. In order to more realistically plan for the implementation of housing programs, it is useful for localities to establish objectives for each housing program which will be implemented during the time frame of the element. Objectives may therefore be short-term in outlook compared to community’s goals.

GOALS

Conservation of the Existing Housing Stock

1. Conserve existing affordable housing in the City through participation in housing assistance programs, regulatory powers and discouraging apartment-to-condominium conversions.
2. Improve the quality of existing housing through code enforcement and residential rehabilitation and replacement of deteriorated housing where necessary.

Identification of Adequate Housing Sites

3. Provide housing sites to accommodate a full range of housing needs and types.
4. Expand the City's inventory of residential land to more completely meet Fountain Valley's share of regional housing need.

Assist in the Development of Affordable Housing

5. Achieve the production of affordable housing on vacant, infill sites to the greatest degree possible.
6. Provide financial incentives to the private sector to build a variety of affordable housing in the City.

Removal of Governmental Constraints

7. Modify, as appropriate, some of the City's development standards to facilitate the construction of a variety of housing types, including new affordable development.
8. Expedite the review and approval process for affordable housing developments to the greatest extent practical.

Promote Equal Housing Opportunity

9. Encourage fair and equal housing throughout the City of Fountain Valley.
10. Achieve equal housing opportunities for all persons and families in housing programs supported by city actions.

POLICIES

1. The City will not undertake any CDBG activities which will result in the displacement of low income households.
2. The City will not undertake any CDBG activities which will result in the displacement of moderate income households.
3. The City will not use CDBG funds to demolish any housing units which are currently being occupied by low income households.
4. The City will give up to a 25% density bonus to developments which set aside specific units which will be occupied by and which will be affordable (rents not to exceed 30% of the tenant's income) to low income households.
5. The City will use CDBG funds to write down the cost of acquiring sites for projects which set aside at least 20% of the units for low and moderate income households. At least half of the set aside units must be for moderate income households. The rents on these units cannot exceed 30% of the household income.
6. The City will provide fast tract processing for housing proposals which will provide affordable housing for low and moderate income households.
7. The City will continue to be a member of the Orange County Housing Authority. The Housing Authority will apply for the Section 8 existing certificates, the Section 8 moderate rehabilitation units, and the Section 8 vouchers which will become available during the first incremental year.
8. The City will help at least one non-profit organization apply for a Section 202 project.
9. The City will contract with the Fair Housing Council of Orange County to provide investigation and counseling assistance for redress of alleged violations of federal and state housing laws.
10. The City will inspect residential neighborhoods in order to identify low and moderate income households which could benefit from the rehabilitation programs.
11. The City will contract with public services agencies for services to low and moderate income residents.

QUANTIFIED OBJECTIVES

Quantified objectives need not match exactly housing need. According to Section 65583 (b) of the Government Code:

"It is recognized that the total housing needs identified pursuant to subdivision (a) may exceed available resources and the community's ability to satisfy this need within the content of the general plan requirements outlined in Article 5 (commencing with Section 65300). Under these circumstances, the quantified objectives need not be identical to the identified existing housing needs, but should establish the maximum number of housing units that can be constructed, rehabilitated, and conserved over a five-year time frame."

Conservation

1. Conserve an estimated 219± units, built in the City's "Affordable Housing Zone".
2. Conserve as rental housing units 2,200± apartment dwelling units (by discouraging the conversion of apartments to for-sale condominium).
3. Conserve at least 36 affordable housing units assisted via the Section 8 rental assistance program.

Rehabilitation

4. Correct code violations to 25 housing units in the next five years (1989-1994).
5. Rehabilitate 160 housing units during the next five years (1989-1994).

Construction

6. Construct 60 to 120 affordable housing units in the next 5 years (1989-1994).
7. Identify residential sites to eradicate shortfall and meet RHNA needs.
8. Achieve construction of RHNA market rate need figures by 1994.

The City of Fountain Valley has an active housing and community development program designed to address the identified needs of its existing and future residents. In fact, the current housing program is expected to meet the identified rehabilitation, conservation, and growth needs of the community as established by SCAG. All of the need for housing assistance by existing, overpaying households will not be met, but the program of new construction will assist a portion of these households. The list below provides a summary of how current and projected needs are being met.

NEEDS ANALYSIS

Existing Resident Housing Assistance Needs
(lower income households paying more than 30% of income on housing costs)

Housing Production Needs

Affordable Housing Development

Housing Condition
(repair rehabilitation and replacement)

Special Housing Needs

CURRENT PROGRAMS

Section 8 rental assistance
(to reduce costs to less than 30% income)

Land Use Element
(infill lots, vacant lots, school sites)
Affordable Housing Zone
General Plan Update

Housing Cost Reduction
(CDBG funds)
Land Acquisition
(CDBG funds)
Mortgage Revenue Bond Financing

Housing Rehabilitation
(CDBG funds)
Code Enforcement

Handicapped Housing
(all new and substantially rehabilitated housing)
Orange County Fair Housing Council
(CDBG funds)
Senior Citizens Housing

There are three primary needs addressed by the City's housing policy and which could, if necessary, merit financial assistance from the 20% set-aside or Low/Moderate Income Housing Fund. These include:

- √ Housing Assistance
- √ Housing Rehabilitation
- √ Affordable Housing Production

The Orange County Housing Authority administers the Section 8 Rental Assistance Program and the Housing Voucher Program for the City. Under these programs, certified low and moderate income households pay 30% of their income for rent and the federal government makes up the difference between this amount and the fair market rent. Landlords must agree to participate in the program and the units must be checked to ensure that they meet minimum standards set by the uniform housing code. The list below summarizes a historical perspective on the Section 8 program as it has worked in Fountain Valley.

<u>Date</u>	<u>Cumulative Number of Certificates Issued</u>	<u>Number of Households (Units) Enrolled in Programs as of Date Shown</u>
November 1983	270	41
12/31/84	328	41
6/01/86	347	40
6/01/87	372	33
6/01/88	417	36
6/01/89	440	36

As indicated above, currently there are 36 lower income (<80% of median income) households who are being assisted by this program. The City's 3-Year CDBG Housing Assistance Plan (10-31-88 to 9-30-91) has targeted rental assistance to 305 households:

<u>Household Type</u>	<u>Number to be Assisted</u>	<u>Percentage Distribution</u>
Elderly	59	19.3%
Small Family	211	69.2%
Large Family	35	11.5%
Total:	305	100.0%

Due to limited resources available from HUD and the relatively high market rents for the City's apartment stock, it will be exceedingly difficult to fully meet the 3-year goal. The quantitative objective of the Housing Element is to increase the number of assisted households from 36 to 60 during the next five years (1989 to 1994).

There are an estimated 36 lower income households who reside in Fountain Valley and receive financial assistance through the Section 8 program. While these resources do not meet the entire need, the use of the 20% set-aside to satisfy this need is not an efficient expenditure of funds. The funds are quickly depleted and not possible to recapture when used to support monthly rental housing costs.

Fountain Valley has a good to superior housing stock. The Housing Assistance Plan (and Housing Element update) contains an estimate of 332 owner and 308 renter housing units suitable for rehabilitation. The current and anticipated level of CDBG funding are sufficient to address this level of need during the 5-year planning period of the Housing Element. Based on past performance, the numerical rehabilitation target contained in the Housing Element update is 160 dwelling units. (Consequently, funds from the 20% set-aside are unnecessary to address the need.)

With regard to affordable housing production, the City's projected need, as stated by SCAG and included in the Housing Element, is 181 housing units for very low and low income households. It is anticipated that 60 to 120 affordable housing units will be constructed based on the numerical objectives of the Housing Element.

8.
5-YEAR HOUSING PROGRAM

INTRODUCTION

According to Section 65583(c), a local housing element must include a program as defined below:

- “(c) A program which sets forth a five-year schedule of actions the local government is undertaking or intends to undertake to implement the policies and achieve the goals and objectives of the housing element through the administration of land use and development controls, provision of regulatory concessions and incentives, and the utilization of appropriate federal and state financing and subsidy programs when available. In order to make adequate provision for the housing needs of all economic segments of the community, the program shall do all of the following:
- (1) Identify adequate sites which will be made available through appropriate zoning and development standards and with public services and facilities needed to facilitate and encourage the development of a variety of types of housing for all income levels, including rental housing, factory-built housing, mobilehomes, emergency shelters and transitional housing in order to meet the community’s housing goals as identified in subdivision (b).
 - (2) Assist in the development of adequate housing to meet the needs of low- and moderate-income households.
 - (3) Address and, where appropriate and legally possible, remove governmental constraints to the maintenance, improvement, and development of housing.
 - (4) Conserve and improve the condition of the existing affordable housing stock.
 - (5) Promote housing opportunities for all persons regardless of race, religion, sex, marital status, ancestry, national origin, or color.”

FIVE-YEAR HOUSING PROGRAM

Local housing elements, pursuant to State law must include, a 5-Year Housing Program indicating the specific actions to be implemented. The chart on the next two pages summarizes the 5-Year Housing Program and is organized as follows:

- Program Category (A-E)
- Program Descriptions
- Agency Responsible
- Funding
- Schedule
- Program Objective

CHART 8
CITY OF FOUNTAIN VALLEY
5-YEAR HOUSING PROGRAM -- 1989 TO 1994

A. Conserve/Improve Housing Stock

<i>Description</i>	<i>Agency/Dept. Responsible</i>	<i>Funding</i>	<i>Schedule</i>	<i>Plan Objective</i>
1. Affordable Housing Zone	√ Hsg. & Comm. Dev. √ Planning Commission	None required	Enforce current program on a continuing basis	219 housing units
2. Condominium Conversions	√ Dept. of Planning/ Bldg.	None required	Continue current policy of discouraging apartment to condominium conversions	Conserve as rental housing 2,200± apartment units
3. At-Risk Housing Conservation	√ Hsg. & Comm. Dev. √ Dept. of Planning and Bldg.	General Fund CDBG Funds	Complete evaluation and program recommendations by Jan. 1992	Conserve affordable housing units in the City
4. Housing Code Enforcement	√ Building Inspectors Code Enforcement personnel √ U.S. Dept. of Hsg. and Urban Dev.	General Fund	Continue current program of periodic neighborhood reviews and responding to complaints	Correct code violations to 25 housing units in the next 5 years
5. CDBG Rehabilitation (see attached charts)	√ U.S. Dept. of Hsg. County of Orange City of Fountain Valley Hsg. & Comm. Dev.	CDBG Funds	Program shall continue far beyond 1991.	160 units over 5 yrs.

<i>Description</i>	<i>Agency Responsible</i>	<i>Funding</i>	<i>Schedule</i>	<i>Program Objective</i>
<i>B. ASSIST IN THE DEVELOPMENT OF AFFORDABLE HOUSING</i>				
1. Section 8 Rental Assistance	✓ Orange County Housing Authority ✓ City of Fountain Valley Hsg. and Comm. Dev.	U.S. Dept. of Housing and Urban Dev.	Continue to establish and update 3-year HAP goal	Increase from 36 to 60 the certified households that receive assistance
2. Affordable Housing Zone housing units	✓ Dept. of Planning/ Bldg. ✓ Hsg. and Comm. Dev.	None required	Encourage use of zone on an on-going basis	20-40 new
3. Housing Cost Reduction/ SRO Development Concept	✓ Dept. of Planning/ Bldg. Hsg. and Comm. Dev. ✓ Hsg. & Comm. Dev.	CDBG Funds State housing programs Federal housing programs	Complete an affordable housing dev. in the next 24 months	40-80 housing units
4. 20% Set-Aside Housing Program	✓ Agency for Comm. Dev.	Tax increment funds	Continue to update the set-aside report annually	Initiate active use of the resources by the mid 1990s
<i>C. ADEQUATE HOUSING SITES</i>				
1. Land Use Element	✓ Dept. of Planning and Bldg.	General Fund	Implement current LUE until comprehensive update is accomplished in 2 yrs.	Achieve construction of RHNA need figures by 1994
2. General Plan Revision Program	✓ City Council ✓ Planning Comm. ✓ Staff Steering Committee ✓ Citizens Advisory Committee ✓ General Plan Consultants	General Fund CRA Funds	Identify residential sites to eradicate shortfall and meet RHNA needs	Complete revision by mid-year 1992

D. EQUAL HOUSING OPPORTUNITY

<i>Description</i>	<i>Agency Responsible</i>	<i>Funding</i>	<i>Schedule</i>	<i>Plan Objective</i>
1. Refer all "red-lining" complaints to federal government as provided for in the Community Reinvestment Act (CRA).	√ Dept. of Planning Bldg. √ Hsg. and Comm. Dev. √ O.C. Fair Hsg. Council	CDBG Funds	On-going	Reduce discrimination in Fountain Valley
2. Ensure fair housing services for all residents of Fountain Valley	√ Hsg. and Comm. Dev. √ Orange County Fair Hsg. Council	CDBG funds	On-going w/ an annual review of available resources	Reduce discrimination in the City
3. Complete a "fair housing" impediments analysis pursuant to CDBG regulations	√ Hsg. and Comm. Dev. √ Orange County Fair Hsg. Council	CDBG funds	Complete impediments analysis within 18 months	Remove identified public and private discriminatory practices if any are found to exist

E. REMOVAL OF GOVERNMENTAL CONSTRAINTS

<i>Description</i>	<i>Agency Responsible</i>	<i>Funding</i>	<i>Schedule</i>	<i>Program Objective</i>
1. Development Standards Review	Dept. of Planning and Building	General Fund	Complete review and revisions process within a 24-month period.	Enhance the capacity to construct affordable hsg. units.
2. Density Bonus Implementation Ordinance	Dept. of Planning and Building	General Fund	Complete ordinance within 12 months of adoption of updated Housing Element or amend existing A-H zone.	Achieve implementation of State law requirements

CONSERVE AND IMPROVE EXISTING HOUSING

Section 65583(c)(4) states that a housing program shall describe actions to “*Conserve and improve the condition of the existing affordable housing stock*”. This requirement refers to conserving the affordability of existing standard housing and improving the structural quality of the stock. In addition, a recent amendment to housing element law (Chapter 1451, Statutes of 1989) requires all housing elements to include, by January 1, 1992, additional needs analyses and programs to address the potential conversion of assisted housing developments to non-low-income housing uses during the next ten year period. Assisted housing developments are defined to include any multi-family rental housing assisted under any of the following programs:

1. *Federal:* Section 8, 213, 221(d)(3), 236, 202, and 101; CDBG and FmHA Section 515.
2. *State:* Multi-family revenue bond.
3. *Local:* Multi-family revenue bond, redevelopment, in-lieu, inclusionary, and density bonus programs.

There are five components to the City’s housing conservation and improvement program:

- √ A.1: Affordable Housing Zone (already built units)
- √ A.2: Condominium Conversions
- √ A.3: At-Risk Housing Conservation
- √ A.4: Housing Code Enforcement
- √ A.5: CDBG Rehabilitation

Affordable Housing Zone

The City has created a special zone which is used by some affordable housing projects. It permits higher densities, reduced parking ratios and unit size standards in comparison with the City’s other multiple-family housing zones. It may only be used by developers who agree to meet specific affordability standards for the type of housing which they are developing. Thus far, 162 units in a project for first-time homebuyers have been built under this zone and 57 additional units are dispersed throughout the City. As a part of these and other developments, “continued affordability” requirements were imposed.

Condominium Conversions

The City has never permitted the conversion of an apartment to individual condominiums although it has permitted conversion to duplexes and four-plexes. There are so few apartment units (2,400±) in Fountain Valley that the City has a policy of encouraging their maintenance as rental units. In addition, most of the apartment buildings in the city do not meet the code requirements for owner-occupied housing. One project was permitted to convert to duplexes but no condominium conversions ever have been permitted to convert.

At-Risk Housing Conservation

In Fountain Valley there are no federally subsidized low-income rental units at risk of conversion to market rate housing. Data for this conclusion was drawn from: The California Housing Partnership Corporation and The California Coalition of Rural Housing Project, Report on Inventory of Federally Subsidized Low-Income Rental Units at Risk of Conversion, March 1, 1989.

Other housing in the City may have been assisted by State and local resources. A specific program to address the potential conversion of these developments is included in the Housing Element as Technical Appendix G.

Code Enforcement

In order to ensure that the housing stock is maintained in good condition and prevent deterioration, the City has a active code enforcement program. Building inspectors and code enforcement personnel periodically inspects all neighborhoods, as well as responding to complaints, and then sends notices to property owners requiring them to correct the problem. The code enforcement program supplements the rehabilitation loan program, and recruits eligible households to take advantage of loans and grants. During the next five years, the City has established an objective to correct code violations to 25 substandard housing units.

Housing Rehabilitation

Housing stock in the City is reaching the age (30 years) where major repairs or maintenance work usually becomes necessary in order to ensure the continued safety of the unit. The residents of many of these units are also approaching retirement age and may need assistance maintaining their units. The rehabilitation loan and grant programs are expected to be very important to the continued health of the City's housing stock in the future.

To provide incentives for housing improvement, the City has established a comprehensive housing program consisting of four components:

- √ Paint and Fix-Up Program
- √ Rebate Program
- √ Mobile Home Grant and Deferred Program
- √ Home Improvement Loan Program

Each of the programs are described in the following charts.

CHART 9

Paint and Fix-Up Program

Type of Assistance	Eligibility Criteria	Example of Eligible Improvements	
The City of Fountain Valley in conjunction with a grant from the Federal Government offers home repair grants up to a maximum of \$3,000 to residents of Fountain Valley. Work must not begin prior to City approval.	✓ Own and reside in a home in need of repair.	• Paint/restucco exterior walls	
	✓ 1991 income eligibility:	• Roofing	
		• Smoke alarms	
		• Chimney spark arresters	
		• Deadbolts	
		• Extermination of termites	
		• Plumbing, electrical heating systems	
		• Insulation/weather stripping	

HCD Rebate Program/Process

Type of Assistance	Eligibility Criteria		Examples of Eligible Improvements
The City of Fountain Valley, in conjunction with a grant from the Federal Government, offers a program to homeowners which will enable qualifying applicants to obtain a rebate of 40% of the total cost of the work up to a maximum of \$1,000, and a minimum of \$250. Work must not begin prior to City approval.	✓	Resident in the City.	<ul style="list-style-type: none">• Paint/restucco exterior walls• Roofing• Windows and doors• Plumbing, electrical/heating
	✓	Own and reside in a home in need of repair.	
	✓	1991 income eligibility.	
	Family Size	Income Limit	
	1	\$26,600	
	2	\$30,400	
	3	\$34,200	
	4	\$38,000	
	5	\$41,050	
6	\$44,100		
7	\$47,100		
8	\$50,150		

CHART 9 (CONT.)

CDBG Mobilehome Grant and Deferred Loan Program

Type of Assistance	Eligibility Criteria		Examples of Eligible Items
The City of Fountain Valley, in conjunction with a grant from the Federal Government, offers grants and deferred loans to eligible applicants for the rehabilitation of their mobile homes. <u>Work must not begin prior to City approval</u> , and funds may be used to correct code <u>deficiencies only</u> . Maximum grant = \$3,000 Deferred loans = \$3,000 to \$7,500	✓ Owner-occupied mobile homes. ✓ 1 grant, 1 loan per resident. ✓ 1991 income eligibility:		<u>Exterior:</u> Weatherization and energy conservation items, roofing, skirting, releveled, handicap modification, painting, extermination and repair of infestation. <u>Interior:</u> Replacement of damaged flooring, repair or replacement of heating and cooling systems; repair of plumbing; electrical systems; repair of doors and windows, handicap modifications, and installation of smoke alarms.
	Family Size	Income Limit	
	1	\$26,600	
	2	\$30,400	
	3	\$34,200	
	4	\$38,000	
	5	\$41,050	
	6	\$44,100	
	7	\$47,100	
	8	\$50,150	

Home Improvement Loan Program

Type of Assistance	Eligibility Criteria		Examples of Eligible Improvements
The City of Fountain Valley, in conjunction with a grant from the Federal Government, offers a program to homeowners which will enable eligible applicants to obtain a low-interest loan. The loan has a minimum limit of \$3,500 and a maximum of \$20,000 with a minimum term of 3 years or a maximum term of 15 years. <u>Work must not begin prior to City approval</u> , and funds may only be used for eligible improvements. Maximum loan is \$30,000 if a room addition is involved. Deferred loan maximum is \$10,000.	✓	Reside in City.	<ul style="list-style-type: none">• Paint/restucco exterior walls• Roofing• Windows or doors• Foundations• Plumbing, electrical heating systems• Extermination of termites• Insulation/weather stripping• Room additions in overcrowded situations
	✓	Own and reside in a home in need of repair.	
	✓	1991 income eligibility:	
	Family Size	Income Limit	
	1	\$26,600	
	2	\$30,400	
	3	\$34,200	
	4	\$38,000	
	5	\$41,050	
6	\$44,100		
7	\$47,100		
8	\$50,150		

ASSIST IN THE DEVELOPMENT OF AFFORDABLE HOUSING

Section 65583(c)(2) of the Government Code mandates that a housing program shall:

"Assist in the development of adequate housing to meet the needs of low and moderate income households."

In addition, Chapter 1140, statutes of 1989, amended housing element law to require the housing program of an element to include, by January 1, 1990, a description of the use of monies in the Redevelopment Agency's Low and Moderate Income Housing Fund if the locality has established a redevelopment project area.

There are four components to this program:

- √ B.1: Section 8 Rental Assistance
- √ B.2: Affordable Housing Zone
- √ B.3: Housing Cost Reduction/SRO Development Concept
- √ B.4: 20% Set-Aside Housing Program

Section 8 Rental Assistance Program

The Orange County Housing Authority administers the Section 8 Rental Assistance Program and the Housing Voucher Program for the City. Under these programs, certified low and moderate income households pay 30% of their income for rent and the federal government makes up the difference between this amount and the fair market rent. Landlords must agree to participate in the program and the units must be checked to ensure that they meet minimum standards set by the uniform housing code. Table 21 summarizes an historical perspective on the Section 8 program as it has worked in Fountain Valley.

TABLE 21
SECTION 8 RENTAL ASSISTANCE PROGRAM
FOR THE CITY OF FOUNTAIN VALLEY ADMINISTERED
BY THE ORANGE COUNTY HOUSING AUTHORITY

<u>Date</u>	<u>Cumulative Number of Certificates Issued</u>	<u>Number of Households (Units) Enrolled in Programs as of Date Shown</u>
November 1983	270	41
12/31/84	328	41
6/01/86	347	40
6/01/87	372	33
6/01/88	417	36
6/01/89	440	36

* Original numbers from last Housing Element Report.

As indicated above, currently there are 36 lower income (<80% of median income) households who are being assisted by this program. The City's 3-Year Housing Assistance Plan (10-31-88 to 9-30-91) has targeted rental assistance to 305 households:

<u>Household Type</u>	<u>Number to be Assisted</u>	<u>Percentage Distribution</u>
Elderly	59	19.3%
Small Family	211	69.2%
Large Family	35	11.5%
Total:	305	100.0%

Due to limited resources available from HUD and the relatively high market rents for the City's apartment stock, it will be exceedingly difficult to fully meet the 3-year goal. The quantitative objective of the Housing Element is to increase the number of assisted households from 36 to 60 during the next five years (1989 to 1994).

Affordable Housing Zone

This zone presents an opportunity to facilitate new affordable housing in the near-term future. The quantitative objective for new development using the provisions of this zone is 20 to 40 new housing units. The key development standards of this zone are: 20% dwelling units per acre; 25% density bonus pursuant to State law; flexible parking and unit size standards; and developments must provide at least 20% affordable units.

This zone will be reevaluated to achieve consistency with the Statewide density bonus law. During this reevaluation other incentives will be considered for possible inclusion in the revised zone. In addition, the minimum lot size requirement will be reduced through a zone code amendment. The amendment will be accomplished within 12 months of Housing Element adoption.

Housing Cost Reduction

An integral part of the City's full-scope affordable housing program, CDBG funds have been allocated for land acquisition to enable the development of new housing at below market production costs. In the past, the City allocated \$1,285,000 of CDBG funds to purchase a 2.2-acre site at Warner and Magnolia for affordable housing and has sponsored an application for Section 202 funding to construct a 71-unit senior citizens apartment building.

More recently, the City acquired a .94 acre parcel, formerly known as the Petrolane site. This acquisition was funded completely through CDBG funds and is targeted for low/moderate income housing, such as SRO's, affordable senior housing or handicapped housing. The quantitative objective for this program, which may encompass SRO's, is 40 to 80 housing units.

20% Set-Aside Housing Program

Pursuant to State law, the Agency for Community Development has prepared a set-aside report. That report outlines housing needs and the manner in which these needs are met with resources other than the set-aside. In the mid-1990s, the set-aside funds will be more actively employed to address the community housing needs.

The City can meet a significant share of its housing needs with resources other than the 20% set-aside. Assuming that federal funding for housing programs continues and that the City uses redevelopment funds to augment federal programs, a reduction in set-aside monies is sufficient to address the City's housing needs. The FVACD will annually evaluate the funding needs of its housing programs and determine an appropriate set-aside accordingly. It is important to note that should a special project come along requiring more funding than the set-aside, the agency for community development would still have an option to fund it from non-set aside tax increment.

During the five-year planning period, \$450,000 of 20% set-aside revenues will be available to support the City's housing initiatives. These initiatives would include:

- √ First-time home buyer program.
- √ Moderate-income housing rehabilitation.
- √ Target neighborhood programs.

The City, as of March 1992, is preparing a comprehensive housing strategy encompassing CDBG and set-aside funds.

ADEQUATE HOUSING SITES

Section 65583(c)(1) states that a local housing element must:

"Identify adequate sites which will be made available through appropriate zoning and development standards and with public services and facilities needed to facilitate and encourage development of a variety of types of housing for all income levels, including rental housing, factory-built housing, mobilehomes, emergency shelters and transitional housing in order to meet the community's housing goals as identified in subdivision (b)."

There are two major components to this program:

- √ C.1: Land Use Element
- √ C.2: General Plan Revision Program

Land Use Element

Housing production needs create the demand for adequate residential sites. The 1961 Land Use Element, as amended during the ensuing years, is the basic policy guide for the City. Currently, there is an insufficient supply of land to accommodate the need for new housing as projected by SCAG — 708 housing units. The list below is an attempt to quantify the acreage required to fully meet the housing need:

<i>Very Low and Low Income</i>	181 housing units at 25 dus/ac (inclusive of density bonus) = 7.2 acres
<i>Moderate Income</i>	150 housing units at 10 dus/ac = 15.0 acres
<i>High Income</i>	363 housing units at 5 dus/ac = 74.4 acres

Land resources to accommodate the need include:

- Vacant sites
- Infill vacant lots
- Reuse sites (commercial centers)
- Surplus school sites
- City owned land

To meet the housing need generated by very low and low income households, there are the Petrolane Site and new construction using the provision of the affordable housing zone. The quantitative objective under these two programs is 60 to 120 housing units. The short-fall will be one of the needs considered during the General Plan revision process.

Other development potential for the moderate and high income households are 298 single family homes on two surplus school sites plus one new tract development presently in the new home market. Once again, there is a deficit of sites to accommodate the new construction needs of these two income groups. Other sites potential will be considered as part of the General Plan revision.

State law indicates that, where needed, adequate sites be identified to facilitate or encourage the development of emergency shelters and transitional housing. The needs assessment for homeless persons and families showed a level of need insufficient to warrant the construction of a shelter or transitional housing. A site has been purchased by the City for development of an affordable housing site such as an SRO, affordable senior housing or handicapped housing.

Comprehensive General Plan Revision

Ensuring an adequate inventory of sites to meet new housing needs is a primary concern of a General Plan. On the assumption that the RHNA projected needs are accurate, there is a deficit residential sites. A significant part of the General Plan revision effort is the identification of residential sites for development in the future. This effort will involve particular attention to the Land Use Element and Economic Development Elements. This program will involve the following tasks:

- √ Inventory of existing residential land use patterns.
- √ Identification of vacant sites, vacant lots and recycling sites.
- √ Formulation of residential land use alternatives for surplus school sites.

- ✓ Formulation for the residential land use alternatives for the reuse of existing commercial sites.
- ✓ Testing of residential land use alternatives through the environmental impact process.

The agencies responsible for completion of the General Plan revision will include:

- City Council
- Planning Commission
- Staff Steering Committee
- Citizens Advisory Committee
- General Plan Consultant and sub-consultants

It is anticipated that the General Plan revision process will be completed by mid-year 1992.

EQUAL HOUSING OPPORTUNITY

Section 65583(c)(5) requires that the housing program:

"Promote housing opportunities for all persons regardless of race, religion, sex, marital status, ancestry, national origin, or color."

With regard to complying with this provision of the State housing law, the D/HCD has offered the following advice:

"Since state and federal laws uniformly outlaw most kinds of housing discrimination, local governments' role is to identify strategies which will support and implement these laws. Such strategies may include consultation with fair housing and counseling organizations in the community to document the incidence of housing discrimination and the availability of services to address the problem. If these services are not available or are inadequate, a locality can request technical assistance from the district office of the Department of Fair Employment and Housing to develop specific local government actions to promote fair housing opportunity."

In smaller localities, the local program may involve the dissemination of information on fair housing laws, and referrals to the district office of the Department of Fair Employment and Housing or other appropriate agencies. In large and/or urban jurisdictions, more direct program action would be appropriate. Examples of such programs include a commitment to sue Community Development Block grant funds to support fair housing and counseling services. Also the locality may wish to create a fair housing council which can investigate and resolve discriminatory complaints, and advocate specific equal housing opportunity actions before community and business organizations."

To meet this requirement of State law, the City will implement three programs:

- √ D.1: Referral of Red-Lining Complaints
- √ D.2: Fair Housing Services
- √ D.3: Impediments Analysis

Referral of Red-Lining Complaints

Instances of red-lining and mortgage-deficient areas are anticipated to be rare in Fountain Valley. (Red-lining refers to geographic areas where mortgage loans are infrequently made or issued on less favorable terms than in other areas of a community.) This program effort involves the capacity-building of the City to be able to refer residents' complaints to appropriate lending, State and Federal authorities. A memorandum will be prepared within six months of Housing Element adoption outlining referral procedures and circulated to City staff for implementation as required.

Fair Housing Services

Fountain Valley contracts with the Orange County Fair Housing Council to provide information and assistance to tenants and buyers who feel that they have been the victims of discrimination. The City expects to continue this service for the foreseeable future. An amount of \$7,137 has been allocated from CDBG funds to support the activities of the OCFHC during the 1990-91 fiscal year.

Fair Housing Impediment Analysis

The 1988 Fair Housing Act encourages cities to remove impediments to fair housing in the implementation of the CDBG program activities as well as the general housing market. The purpose of this program is to conduct an assessment of any impediments to fair housing in Fountain Valley and to identify remedies which are appropriate and feasible to implement. The impediments analysis will be conducted during the 1991-92 fiscal year. The agencies responsible for completion of the analysis will include:

- √ Housing and Community Development
- √ Planning and Building
- √ Orange County Fair Housing Council

REMOVAL OF GOVERNMENTAL CONSTRAINTS

Section 65583(c)(3) states that a local housing element must:

"Address, and where appropriate and legally possible, remove governmental constraints to the maintenance, improvement, and development of housing."

The removal of governmental constraints will occur as the City implements the following action programs:

- √ E.1: Development Standards Review
- √ E.2: Density Bonus Implementation Ordinance

Development Standards Review

A few revisions to the City's development standards are necessary to facilitate the development of affordable housing. This program encompasses a thorough review and revision, as appropriate, of residential land use development standards. The following standards will be analyzed to determine whether appropriate revisions are needed to enable the construction of housing for low- and moderate-income households.

- √ The minimum lot area in the AH — Affordable Housing Zone — is 5 acres. Sites of this size in Fountain Valley are scarce and a reduction in the minimum lot size may be appropriate.
- √ The minimum floor area requirements in some residential zones may be reduced to lower new construction costs. In the multi-family zones, the standards for minimum enclosed residential areas range from 500 (bachelor) to 1,150 (3-bedroom) square feet. As noted, some reduction in these standards may be both suitable and helpful incentives to the production of affordable housing.
- √ Single-Room Occupancy (SRO) standards need to be incorporated in the Zoning Code. The development of this housing type is a land use opportunity for the City. The current Zoning Code does not contain provisions for SRO housing. Consequently, the Development standards Review will consider SRO requirements including: dwelling unit versus population density; definitions; unit size; height; and maximum development size.

Density Bonus Implementation Ordinance

Government Code Sections 65913.4, 65915 and 65917, relating to density bonus requirements, were amended in 1989 by Chapter 842. These amendments were effective from January 1 to March 26, 1990. Chapter 31 of the Statutes of 1990 repealed Section 65913.4, and amended Section 65915; this action was effective March 26, 1990. Government Code Section 65915 provides that a local government shall grant a density bonus of at least 25%, and an additional incentive, or financially equivalent incentive(s), to a developer of a housing development agreeing to construct at least:

1. 20% of the units for lower-income households; or
2. 10% of the units for very low-income households; or
3. 50% of the units for senior citizens.

State law requires that cities prepare and adopt an implementing ordinance. Such an ordinance will be completed within 12 months following adoption of the updated Housing Element. This action program will bring the density bonus component of the Affordable Housing Zone into compliance with recently enacted statutes (Government Code Section 65915).

GENERAL PLAN CONSISTENCY

According to Section 65583(c), the housing program must describe “. . . the means by which consistency will be achieved with other General Plan Elements and community goals,” The Fountain Valley General Plan contains the seven mandatory elements. Internal consistency, as used in California planning law, means that no policy conflict exists, either textual or diagrammatic, between the components of an otherwise complete and adequate general plan. The internal consistency requirements has five dimensions with respect to the structure and content of the general plan, which is explained in the following paragraphs.

INTERNAL CONSISTENCY DEFINED

Internal consistency, as used in California planning law, means that no policy conflict exists, either textual or diagrammatic, between the components of an otherwise complete and adequate general plan. The internal consistency requirements has five dimensions with respect to the structure and content of the general plan, which are explained in the following paragraphs.

Equal Status Among General Plan Elements

All elements of the general plan have equal legal status. For example, the land use and open space elements cannot contain different land use intensity standards. Because no element is legally subordinate to another, the general plan must resolve potential conflicts between or among the elements through clear language and policy.

Consistency Among the Element (Inter-Element Consistency)

All general plan elements, whether mandatory or optional, must be consistent with each other. Whenever a jurisdiction adopts a new element or amends part of a plan, it must change the rest of the plan to eliminate any inconsistencies that the new element or amendment creates. The jurisdiction should update the plan at the same time it adopts the new element or amendment, or immediately thereafter.

Consistency Within an Element (Intra-Element Consistency)

Each element's data, analyses, goals, policies, and implementation programs, must be consistent with and complement one another. Established goals, data, and analysis form the foundation for any ensuing policies. In turn, policies must form a logical basis for a general plan's implementation programs.

Area Plan Consistency

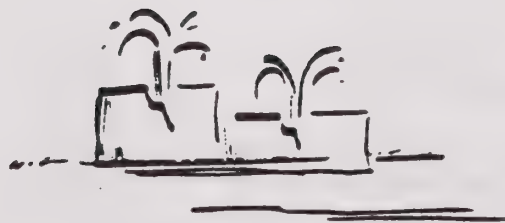
Internal consistency also means that all principles, goals, objectives, policies, and plan proposals set forth in an area or community plan must be consistent with the overall general plan. The general plan must contain a discussion of the role of area plans (if any) and their relationship to the general plan.

Text and Diagram Consistency

Internal consistency means that the general plan text and diagrams must be consistent with one another since both are integral parts of the plan.

The Housing Element has a short-range time horizon as compared to other elements of the General Plan. Unlike other elements of the revised General Plan, the Housing Element must be revised in 1994. However, the City of Fountain Valley has completed a comprehensive revision of the General Plan. As noted earlier, the community's housing needs were considered during the revision process.

10.0 GROWTH MANAGEMENT



CHAPTER 10

GROWTH MANAGEMENT

10.1 STATEMENT OF INTENT AND PURPOSE

The purpose and intent of this Element is to mandate that growth and development be based upon the City of Fountain Valley's ability to provide an adequate circulation system pursuant to the Orange County Division, League of California Cities "Countywide Traffic Improvement and Growth Management Plan Component" - Measure M.

10.2 OVERVIEW

The Growth Management Element contains policies for the planning and provision of traffic improvements that are necessary for orderly growth and development. Presented in this Element are policies and programs for the establishment of specific traffic levels of service (LOS) standards, development mitigation, and development phasing. In addition, the Element includes an implementation program for annual monitoring.

Fountain Valley is a developed community with most of its public facilities in place to support development of the General Plan Land Use Element. However, traffic and circulation improvements may be necessary to implement the circulation Element and the regional transportation system.

Consistency with Other Elements

A major goal of the Growth Management Element is to ensure that the planning, management and implementation of traffic improvements and public facilities are adequate to meet the current and projected needs of the City. While this goal is a high

priority, it must be achieved while maintaining internal consistency among the other elements of the General Plan as required by State Law. Therefore, the Growth Management Element does not replace or supersede any of the other General Plan elements; instead, the Element addresses, amplifies, and supports the goals and policies that are included in the other General Plan elements and establishes new standards where necessary.

The Growth Management Element is implemented through various coordinated programs developed to support and carry out its goals, objectives and policies. In addition, this element minimizes duplication between Measure M and Congestion Management Program (CMP) requirements.

Relationships to State and Federal Highway System

While the Growth Management Element addresses the need for the phasing of arterial highway improvements, it is recognized that the Federal and State Highway System is a significant component of the City's overall transportation system.

The present system of freeways in Orange County consists of 160 miles and is fast becoming antiquated and deficient. The transportation problem in Orange County stems primarily from inadequate capacity to serve travel demands placed on the system during peak periods. This lack of capacity has resulted in poor levels of service, characterized by severe congestion and low travel speeds during peak periods. The most severe congestion occurs at the junction of major freeways.

The San Diego Freeway transverse the City of Fountain Valley. As congestion continues to increase on the freeway system, more drivers are utilizing the arterial system. Consequently, some

arterials are becoming increasingly congested, particularly those paralleling the freeway. This situation is of special concern on those arterials which provide access to the freeway system.

10.3 DEFINITION

For the purpose of this Element, the following terms are defined below:

1. "Capital Improvement Program: (CIP) shall mean a listing of capital projects needed to meet, maintain and improve a jurisdiction's adopted Traffic Level of Service and Performance Standards. The CIP shall include approved projects and an analysis of the cost of the proposed projects as well as a financial plan for providing the improvements.
2. "City" shall mean the City of Fountain Valley unless otherwise noted.
3. "Comprehensive Phasing Program" (CPP) shall mean a road improvement and financing plan which responds to the level of service requirement in this Element. A CPP must include level of service requirements and take into account measurable traffic impacts on the circulation system.
4. "Critical Movement" shall mean any of the conflicting through or turning movements at an intersection which determine the allocation of green signal time.
5. "Development Phasing Program" shall mean a program which establishes the requirements that building and grading permits shall be approved or issued in a manner that assures implementation of required transportation improvements. The City shall specify the order of improvements and the number of dwelling units based, at a minimum, on mitigation measures adopted in conjunction with environmental documentation and other relevant factors.
6. "Deficient Intersection Fund" shall mean a trust fund established to implement necessary improvements to existing intersections which do not meet the Traffic Level of Service Policy.
7. "Deficient Intersection List" shall mean a list of intersections that: 1) do not meet the Traffic Level of Service Policy for reasons that are beyond the control of the City, e.g., ramp metering effects, traffic generated outside the City's jurisdiction, etc., and 2) that are not brought into compliance with the LOS standard in the most current Seven-Year Capital Improvement Program. Additional intersections may be added by the City to the deficient intersection list only as a result of conditions which are beyond the control of the City.
8. "Growth Management Areas (GMAs)" shall mean subregions of the County established by the City-County Coordination Committee (or successor) to promote inter-jurisdictional coordination in addressing infrastructure concerns and in implementing needed improvements.
9. "Local Transportation Authority" as currently designated by the Board of Supervisors, shall mean the Orange County Transportation Authority.
10. "Measurable Traffic" shall mean a traffic volume resulting in a 1% increase in the sum of the critical movements at an intersection.

11. All other terms shall be as defined in the Fountain Valley Municipal Code as of the date of adoption of this Element.

10.4 GOALS, OBJECTIVES, AND POLICIES

1. Reduce traffic congestion.
2. Ensure the provision of adequate transportation for existing and future residents of the City.

Achievement of these goals shall be measured by the following objectives:

1. Transportation - The circulation system shall be implemented in a manner that achieves the established Traffic Level of Service Policy.
2. Development Phasing - Development shall be phased in a manner consistent with the applicable Comprehensive Phasing Program.

POLICIES

1. Traffic Level of Services

Level of Service (LOS) "D" is the target standard for intersections under sole control of the City. To achieve this, it is the policy of the City that within three years of the issuance of the first building permit for a development project or within five years of the first grading permit for said development, whichever occurs first, that the necessary improvements to transportation facilities to which the project contributes measurable traffic, are constructed and completed to attain Level of Service (LOS) "D" at the intersection under sole control of the City.

Intersections exempt from the above paragraph include facilities under the jurisdiction of another City, the County, the State or those included

on the Deficient Intersection List, established pursuant to this Element. However, it is the policy of the City that all development contributing measurable impacts to intersections on the Deficient Intersection List and all projects contributing cumulatively, or individually, 10% or more of the traffic using an intersection will be assessed a mitigation fee determined by the involved jurisdictions and locally administered as part of the Capital Improvement Program.

Achievement of the adopted levels of service standards and implementation of exacted transportation improvements shall take into consideration extraordinary transportation circumstances which may impact identified intersections and/or timing of the required improvements.

Level of Service will be measured by the Traffic Level of Service Policy Implementation Manual established by the Local Transportation Authority.

2. Development Mitigation

It is the policy of the City that all new development pay its share of regional traffic mitigation. The City will impose an impact mitigation fee for improvements within its boundaries and to work with other jurisdictions through Inter-Jurisdictional Planning Forums to determine minimally acceptable impact fee levels for applications within the GMA.

It is also a policy of the City that new Measure M sales tax revenues shall not be used to replace private developer funding which has been committed for any project.

3. Development Phasing

It is the policy of the City that development shall be phased in accordance with any applicable Comprehensive Phasing Program (CPP) adopted by the City. It is the intent that such CPP's shall include development phasing plans which establish both a phasing allocation of development commensurate with roadway capacities and an overall build-out development plan which can be supported by implementation of the planned infrastructure system.

4. Inter - Jurisdictional Planning Forum

It is a policy of the City to participate in Inter-Jurisdictional Planning Forums at the GMA level to discuss developments with multi-jurisdictional impacts and appropriate mitigation measures.

5. Capital Improvement Program

A Capital Improvement Program shall be established to meet and maintain the adopted traffic level of service.

6. Transportation Demand Management TDM

It is a policy of the City to promote traffic reduction strategies through TDM measures.

7. Jobs and Housing Policy

Recognizing the constraints of existing physical development characteristics, it is the policy of the City to strive towards an achievement of balanced land use whereby residential, non-residential and public land uses are proportionally balanced.

10.5 IMPLEMENTATION PROGRAMS

1. Development Mitigation Program:

By June 30, 1993, a Development Mitigation Program shall be established to ensure that all new development pays its share of the costs associated with that development. Participation shall be on a pro-rata basis and be required of all development projects except where an increased level of participation exceeding these requirements is established through negotiated legal mechanisms.

The Program will be coordinated through Inter-Jurisdictional Planning Forums in order to determine minimally acceptable impact fees for application within the GMAs. The City will receive credit for existing traffic mitigation fee programs with regard to the GMA base level fee.

2. Comprehensive Phasing Program:

By June 30, 1993, the City shall provide a Comprehensive Phasing Program (CPP). The CPP shall contain a development phasing component to ensure that infrastructure is added as development proceeds so that the provision of road improvements is in balance with demand. The Program shall provide reasonable lead time to design and construct specific transportation improvements.

3. Performance Monitoring Program:

By June 30, 1993, Performance Monitoring Program shall be established to provide an annual evaluation of compliance with development phasing allocations established pursuant to sections IV-2 and V-3 of this Element. This program will also ensure road

improvements or funding are actually provided in order for development to continue. If the improvements/funding are not provided, development shall be deferred until compliance with the provisions of this program are achieved.

In addition, the Performance Monitoring Program will provide an annual evaluation of the maintenance of transportation service levels. Annual traffic reports provided under this Program shall utilize data collected within three (3) months of preparation of the report. In event that the Performance Monitoring Program identifies one or more service level deficiencies, measures shall be implemented to correct identified deficiencies.

4. Traffic Improvement/Public Facilities Development Agreements: In the event the financing and implementation provisions of this Element are implemented through subsequent, legally valid Traffic Improvement/Public Facilities Development Agreement, said agreements shall be consistent with this Element and its implementing ordinances, plans and programs.
5. Additional Implementation Program: Other implementing measures, as deemed necessary the City/County to further the goals of this Element, may be established.

11.0 GLOSSARY



CHAPTER 11

GLOSSARY

A-WEIGHTED SOUND LEVEL. The sound pressure level in decibels as measured on a sound level meter using the A-Weighted filter network. The A-Weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear. A numerical method of rating human judgement of loudness.

Acre - A measure of land equalling 43,560 square feet.

Acres, Gross - The entire acreage of a site. Most communities calculate gross acreage to the centerline of proposed bounding streets and to the edge of the right-of-way of existing or dedicated streets.

Acres, Net - The portion of a site that can actually be built upon. The following generally are not included in the net acreage of a site: public or private roads rights-of-way, public open space, and flood ways.

Adverse Impact - A negative consequence for the physical, social, or economic environment resulting from an action or project.

Affordable Housing - Housing is considered affordable to all households if it costs no more than 30% of the gross monthly income for rents and up to 3.0 times annual income for purchasing a home; these are the standards used by the federal and state government and the majority of lending institutions.

Agriculture - Use of land for the production of food and fiber, including the growing of crops and/or the grazing of animals on natural prime or improved pasture land.

Air Basin - One of fourteen self-contained regions, minimally influenced by air quality in contiguous regions, within which atmospheric and source interaction occurs.

Air Pollutant Emissions - Discharges into the atmosphere, usually specified in terms of weight per unit of time for a given pollutant from a given source.

Air Quality Management Plan (AQMP) - A plan, prepared by the South Coast Air Quality Management District (SCAQMD) and the Southern California Association of Governments (SCAG), to achieve and maintain ambient air quality standards in jurisdictions designated by the state legislature.

Air Quality Standard - A health-based standard for air pollution established by the federal government and the state.

Alquist-Priolo Special Studies Zone - A seismic hazard zone designated by the State of California within which specialized geologic investigations must be prepared prior to approval of certain new development.

Ambient Air Quality - The quality of the air at a particular time and place.

Ambient Noise Level - The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Arterial - A major street carrying the traffic of local and collector streets to and from freeways and other major streets, with controlled intersections and generally providing direct access to properties.

Augmented Arterial - Arterials designed to provide higher levels of carrying capacity than would typically be achieved within the standard arterial cross-sections shown in the General Plan. This augmented capacity would be provided using various methods ranging from improvements at intersections of the arterial to the addition of thru lanes along the arterial.

Average Daily Traffic (ADT) - The total volume of traffic on a given road during a specific time period.

Buffer Zone - An area of land separating two distinct land uses that acts to soften or mitigate the effects of one land use on the other.

Building - Any structure used or intended for supporting or sheltering any use or occupancy.

Building Height - The vertical distance measured from the ground to ceiling of the uppermost story.

California Environmental Quality Act (CEQA) - State legislation adopted in 1970 which ensures the protection of the environment. This legislation also required California governmental agencies, at all levels, to develop standards and procedures necessary to protect environmental quality.

Capital Improvement Program (CIP) - A program, administered by the City or the County government and reviewed by the Planning Commission, which schedules permanent improvements, usually for a minimum of five years into the future, to fit the projected fiscal capability of the local jurisdiction. The program generally is reviewed annually, for conformance to and consistency with the General Plan.

Carrying Capacity - Used in determining the potential of an area to absorb development: (1) the level of land use, human activity, or development for

a specific area that can be accommodated permanently without an irreversible change in the quality of air, water, land, or plant and animal habitats; (2) the upper limits of development beyond which the quality of human life, health, welfare, safety, or community character within an area will be impaired; and (3) the maximum level of development allowable under current zoning.

Census - The official decennial enumeration of the population conducted by the federal government.

Citizens Advisory Committee (CAC) - Fifteen member committee comprised of planning commissioners, business leaders, and community members.

Class I (bicycle path) - An exclusive bicycle facility with traffic crossings minimized. Asphalt, concrete, or other all-weather surface as appropriate.

Class II (bicycle lane) - A separate bicycle travel lane painted on major and secondary arterials.

Class III (bicycle route) - A street which is signed as a bicycle route, but which does not include a separate travel lane for bicycles.

Collector - A street for traffic moving between arterial and local streets, generally providing direct access to properties.

Community Development Block Grant (CDBG) - Federal allocation of funds to a jurisdiction for discretionary disbursement, generally utilized for local community development projects which benefit low income residents.

Community Noise Equivalent Level (CNEL) - The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and after

addition of 10 decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.

Community Redevelopment Agency (CRA) - A local agency created under California Redevelopment Law, or a local legislative body that has elected to exercise the powers granted to such an agency, for the purpose of planning, developing, replanning, redesigning, clearing, reconstructing, and/or rehabilitating all or part of a specified area with residential, commercial, industrial, and/or public (including recreational) structures and facilities. The redevelopment agency's plans must be compatible with the adopted General Plan.

Congestion Management Plan (CMP) - A mechanism employing growth management techniques, including traffic level of service requirements, standards for public transit, and trip reduction programs involving transportation systems management. AB 1791, effective August 1, 1990, requires all cities and counties that include urbanized areas, to adopt by December 1, 1991, and annually update a Congestion Management Plan.

Conservation - The management of natural resources to prevent waste, destruction or neglect.

Critical Facility - A facility housing or serving people, that are necessary in the event of an earthquake or flood, such as hospitals, fire, police, and emergency service facilities, utility "lifeline" facilities, such as water, electricity, and gas supply, sewage disposal, and communications and transportation facilities.

Cumulative Impact - As used in CEQA, the total impact resulting from the accumulated impacts of individual projects or programs over time.

Day-Night Average Level (LDN). The average equivalent A-Weighted sound level during a 24-hour day, obtained after addition of ten (10) decibels to sound levels in the night before 7 a.m. and after 10 p.m.

Decibel (dB) - A unit for describing the amplitude of sound, equal to twenty times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).

Dedication - The turning over by an owner or developer of private land for public use, and the acceptance of land for such use by the governmental agency having jurisdiction over the public function for which it will be used. Dedications for roads, parks, school sites, or other public uses often are made conditions for approval of a development by a city or county.

Density - Dwelling units per acre.

Density Bonus - The allocation of development rights that allow a parcel to accommodate additional square footage or additional residential units beyond the maximum for which the parcel is zoned, usually in exchange for the provision or preservation of an amenity at the same site or at another location. Under California law, a housing development that provides twenty percent of its units for lower income households, or ten percent of its units for very-low income households, or fifty percent of its units for seniors, is entitled to a density bonus.

Design Review - The comprehensive evaluation of a development and its impact on neighboring properties and the community as a whole, from the standpoint of site and landscape design, architecture, materials, colors, lighting, and signs, in accordance with a set of adopted criteria and standards. Design review usually refers to a system set up

outside of the zoning ordinance, whereby projects are reviewed against certain standards and criteria by a specially established design review board or committee.

Development Impact Fee - A fee levied on the developer of a project by a city, county, or other public agency as compensation for otherwise-unmitigated impacts the project will produce. California Government Code Section 66000, et seq, specifies that development fees shall not exceed the estimated reasonable cost of providing the service for which the fee is charged. To lawfully impose a development fee, the public agency must verify its method of calculation and document proper restrictions on use of the fund.

Development Rights - The right to develop land by a land owner who maintains fee-simple ownership over the land or by a party other than the owner who has obtained the rights to develop. Such rights usually are expressed in terms of density allowed under existing zoning.

Discretionary Decision - As used in CEQA, an action taken by a governmental agency that calls for the exercise of judgement in deciding whether to approve and/or how to carry out a project.

Dwelling Unit - A room or group of rooms (including sleeping, eating, cooking, and sanitation facilities, but not more than one kitchen), that constitutes an independent housekeeping unit, occupied or intended for occupancy by one household on a long-term basis.

Easement - Usually the right to use property owned by another for specific purposes or to gain access to another property. For example, utility companies often have easements on the

private property of individuals to be able to install and maintain utility facilities.

Endangered Species - A species of animal or plant is considered to be endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more causes.

Enhanced Intersections - Intersections projected to require more lanes than typically provided within the arterial cross-sections shown in the General Plan

Equivalent Sound Level (LEQ). The sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time varying noise level. The energy average noise level during the sample period.

Family - Two or more persons related by birth, marriage, or adoption; or an individual or a group of persons living together who constitute a bona fide single-family housekeeping unit in a dwelling unit, not including a fraternity, sorority, club, or group of persons occupying a hotel, lodging house or institution of any kind.

Fault - A fracture in the earth's crust forming a boundary between rock masses that have shifted.

Flood Insurance Rate Map (FIRM) - The official map on which the Federal Insurance Administration has delineated areas of special flood hazard and the risk premium zones applicable to that community.

Flood Plain - A lowland or relatively flat area adjoining inland or coastal waters that is subject to a one percent or greater chance of flooding in any given year (i.e., 100-year flood).

Floor to Area Ratio (FAR) - The ratio of the gross floor area permitted on a site divided by the total net area of the site, expressed in decimals to one to two places. For example, on a site with 10,000 net square feet of land area, an FAR of 1.0 will allow a maximum of 10,000 gross square feet of building floor area to be built. On the same site, an FAR of 1.5 would allow 15,000 square feet of floor area; an FAR of 2.0 would allow 20,000 square feet; and an FAR of 0.5 would allow only 5,000 square feet.

Frequency - The number of times per second that a sound pressure signal oscillates about the prevailing atmosphere pressure. The unit of frequency is the hertz. The abbreviation is Hz.

General Plan - A compendium of city or county policies regarding long term development, in the form of maps and accompanying text. The General Plan is a legal document required of each local agency by the State of California Government Code Section 65301 and adopted by the City Council or Board of Supervisors. In California, the General Plan has seven mandatory elements (Land Use, Circulation, Housing, Conservation, Noise, Open Space, Safety and Seismic Safety) and may include any number of optional elements (such as Air Quality, Economic Development, Hazardous Waste, and Parks and Recreation).

Goal - The ultimate purpose of an effort stated in a way that is general in nature and immeasurable.

Green Acres Project Water - Wastewater that has undergone primary treatment is used to irrigate land.

Groundwater - Subsurface or underground water resources, often confined to aquifers capable of supplying wells and springs.

Growth Management - The use by a community of a wide range of techniques in combination to determine the amount, type, and rate of development desired by the community and channel that growth into designated areas. Growth management policies can be implemented through growth rates, zoning, capital improvement programs, public facilities ordinances, urban limit lines, standards for levels of service and other programs.

Guidelines - General statements of policy direction around which specific details may later be established.

Habitat - The physical location or type of environment in which an organism or biological population lives or occurs.

Hardscape - Those elements or features which are incorporated into the landscape treatment of an area, and refer to those design components which are not considered plant materials. Such features may include lighting, signage, and street furniture (consisting of trash enclosures, bicycle racks, benches, planters, decorative walkways, newspaper racks, etc.).

Hazardous Material - An injurious substance, including pesticides, herbicides, toxic metals and chemicals, liquified natural gas, explosives, volatile chemicals and nuclear fuels, as established by state and federal agencies.

Historic - Important, significant, famous, or decisive in history.

Household - The census considers all persons living in a dwelling unit to be a household, whether or not they are related. Both a single person living in an apartment and a family living in a house are considered households.

Impact - The effect of any direct man-made actions or indirect repercussions of man-made actions on existing physical, social or economic conditions.

Implementation Measure - An action, procedure, program or technique that carries out general plan policy.

Improvement - The addition of one or more structures or utilities on a parcel of land.

Infrastructure - The physical systems and services which support development and people, such as streets and highways, transit services, airports, water and sewer systems, and the like.

Intrusive Noise - That noise which intrudes over and above the ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, time of occurrence, and tonal or informational content as well as the prevailing ambient noise level.

Issues - Important unsettled community matters or problems that are identified in a community's General Plan and dealt with by the Plan's goals, policies, plan proposals, and implementation programs.

Jobs/Housing Balance - The availability of affordable housing for employees. The jobs/housing ratio divides the number of jobs in an area by the number of employed residents. A ratio of 1.0 indicates a balance. A ratio greater than 1.0 indicates a net in-commute, less than 1.0 indicates a net out-commute.

L10. The A-Weighted sound level exceeded 10 percent of the sample time. Similarly L50, L90, L99, etc.

Landscaping - Planting, including trees, shrubs, and ground covers, suitably designed, selected, installed, and maintained as to enhance a site or

roadway permanently.

Land Use - The occupation or utilization of land or water area for any human activity or any purpose defined in the General Plan.

Land Use Classification - A system for classifying and designating the appropriate use of properties.

Level of Service (LOS) - A scale that measures the amount of traffic a roadway may be capable of handling on a roadway or at the intersection of roadways.

Master Environmental Impact Report (MEIR) - An informational document used in the decision-making process which identifies the effects that a proposed project or activity will have on the natural and man-made environments. It must be prepared in accordance with the California Environmental Quality Act (CEQA) of 1970 and must address nine mandatory issues: project description, environmental setting, adverse environmental effects, short and long term use, irreversible environmental changes, growth inducement, alternatives to the project, and natural and human environmental resources.

Mitigation - The lessening or elimination of the impacts of an action through changes in the proposed action or the undertaking of additional measures.

Mixed Use - Properties on which various uses, such as office, commercial, institutional and residential, are combined in a single building or on a single site in an integrated development project with significant functional interrelationships and a coherent physical design. A single site may include contiguous properties.

Noise - Any unwanted sound or sound which is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. The State Noise Control Act defines noise as "...excessive undesirable sound..."

Noise Attenuation - The ability of a material, substance, or medium to reduce the noise level from one place to another or between one room and another. Noise attenuation is specified in decibels.

Noise Exposure Contours - Lines drawn about a noise source indicating constant energy levels of noise exposure. CNEL and Ldn are the metrics utilized herein to describe community exposure to noise.

Noise Referral Zones - Such zones are defined as the area within the contour defining a CNEL level of 60 decibels. It is the level at which either State or Federal laws and standards related to land use become important and, in some cases, preempted local laws and regulations. Any proposed noise sensitive development which may be impacted by a total noise environment of 60 dB CNEL or more should be evaluated on a project specific basis.

Noise Sensitive Land Use - Those specific land uses which have associated indoor and/or outdoor human activities that may be subject to stress and/or significant interference from noise produced by community sound sources. Such human activity typically occurs daily for continuous periods of 24 hours or is of such a nature that noise is significantly disruptive to activities that occur for short periods. Specifically, noise sensitive land uses include: residences of all types, hospitals, places of workshop and schools.

Non-attainment - The conditions of not achieving a desired or required level of performance. Frequently used in reference to air quality.

Non-conforming Use - A use that was valid when brought into existence, but by subsequent regulation becomes no longer conforming. Typically, non-conforming uses are permitted to continue for a designated period of time, subject to certain restrictions.

Open Space - Land or water which is essentially unimproved and devoted to an open space use for the purposes of: (1) the preservation of natural resources; (2) the managed production of resources; (3) outdoor recreation; or (4) public and safety.

Ordinance - A law or legislation set forth and adopted by a governmental authority, usually a city or county.

Overlay - A land use designation on the Land Use Map, or a zoning designation on a zoning map, that modifies the basic underlying designation in some specific manner.

Parcel - A lot, or contiguous group of lots, in single ownership or under single control, usually considered a unit for purposes of development.

Peak Hour/Peak Period - For any given roadway, a daily period during which traffic volume is highest, usually occurring in the morning and evening commute periods.

Planning Area - The planning area is the land area addressed by the General Plan, and coincides with the Sphere of Influence and encompasses land both within the City Limits and potentially annexable land.

Planning Commission - A five member body created by the City in compliance with California law which requires the

assignment of the planning functions of the City to the Planning Department, Planning Commission, hearing officers, and/or the legislative body itself.

Policy - A specific statement which sets forth guidelines for future action.

Pro Rata - Refers to the proportionate distribution of something to something else or to some group, such as the cost of infrastructure improvements associated with new development apportioned to the users of the infrastructure on the basis of projected use.

Rare or Endangered Species - A species of animal or plant listed in Sections 670.2 or 670.5, Title 14, California Administrative Code; or Title 50, Code of Federal Regulations, Section 7.11 or Section 17.2, pursuant to the Federal Endangered Species Act designating species as rare, threatened, or endangered.

Recreation, Active - A type of recreation or activity that requires the use of organized play areas including, but not limited to, softball, baseball, football and soccer fields, tennis and basketball courts, as well as various forms of children's play equipment.

Recreation, Passive - Type of recreation or activity that does not require the use of organized play areas.

Redevelopment - Community Redevelopment Law, Part 1, Division 24, State of California Health and Safety Code provides that any city can establish a Redevelopment Agency to prepare and adopt redevelopment plans in order to revitalize problem areas and remedy blighted conditions.

Redevelopment Agency - A redevelopment agency created pursuant to the community redevelopment law or a legislative body which has elected to exercise the powers granted to a

redemption agency by the community redevelopment law, as stipulated in Health and Safety Code Section 33003.

Redevelopment Plan - The legal document which contains certain statutory requirements, defines the project area and describes the redevelopment process and financing mechanisms. Provides the legal framework for the redevelopment process, as identified in Health and Safety Code Section 33010.

Regional - Pertaining to activities or economies at a scale greater than that of a single jurisdiction, and affecting a broad geographic area.

Regional Mobility Plan (RMP) - A comprehensive regional planning document for the SCAG region which provide specific means for recapturing and retaining the transportation mobility levels of 1984.

Rehabilitation - The repair, preservation, and/or improvement of substandard housing.

Resources, Non-renewable - Refers to natural resources, such as fossil fuels and natural gas, that, once used, cannot be replaced and used again.

Retrofit - To add materials and/or devices to an existing building or system to improve its operation or efficiency.

Rezoning - An amendment to the map and/or text of a zoning ordinance to effect a change in the nature, density, or intensity of uses in a zoning district and/or on a designated parcel or land area.

Right-of-Way (ROW) - The entire width or property for the use of highways, flood and drainage works, overhead and underground utilities, or any related improvements.

School District Lands - Properties owned by public school districts and used for educational, recreational, and administrative purposes.

Significant Effect - A beneficial or detrimental impact on the environment. May include, but is not limited to, significant changes in an area's air, water, and land resources.

Single Family Dwelling, Attached - A dwelling unit occupied or intended for occupancy by only one household that is structurally connected with at least one other such dwelling unit.

Single Family Dwelling, Detached - A dwelling unit occupied or intended for occupancy by only one household that is structurally independent from any other such dwelling unit or structure intended for residential or other use.

Single Room Occupancy (SRO) - A single room, typically 80 to 250 square feet, with a sink and closet, but which requires the occupant to share a communal bathroom, shower, and kitchen.

Sound Level (Noise Level) - The weighted sound pressure level obtained by use of a sound level meter having a standard frequency-filter for attenuating part of the sound spectrum.

Sound Level Meter - An instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement and determination of noise and sound levels.

Southern California Association of Governments (SCAG) - An association comprised of local governments, counties, and cities within Riverside, San Bernardino, Orange, Los Angeles, Imperial and Ventura counties.

South Coast Air Quality Management District (SCAQMD) - The air pollution control district for the area which

includes Orange, Los Angeles, Riverside and San Bernardino counties.

Solid Waste - All putrescible and nonputrescible solid, semisolid and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes.

Specific Plan - A Specific Plan is a tool to implement the General Plan which permits transfer of density requirements and deviations from General Plan policies for a particular site. However, the site as a whole must be consistent with the General Plan's density requirement and developed guidelines as well as all government codes. The advantage of the Specific Plan is that it permits a fully planned development to be implemented incorporating common space and recreation, commercial and industrial area along with other amenities to meet the needs of its potential residents or users. (State of California Government Code Section 65450 et seq.)

Sphere of Influence - The probable ultimate physical boundaries and service area of a local governmental agency, as established by the Local Agency Formation Commission (LAFCO).

Subdivision - The division of a tract of land into defined lots, either improved or unimproved, which can be separately conveyed by sale or lease, and which can be altered or developed. "Subdivision" includes a condominium project as defined in Section 1350 of the California Civil Code and a community apartment project as defined in Section 11004 of the Business and Professions Code.

Subdivision Map Act - Division 2 (Sections 66410 et seq) of the California Government Code, this act vests in local legislative bodies the regulation and control of the design and improvement of subdivisions, including the requirement for tentative and final maps.

Transit - Transit services include, but are not limited to, bus, light rail, rapid transit, commuter rail services and facilities, and carpools and ridesharing in private vehicles.

Transportation Demand Management (TDM) - The implementation of strategies which will encourage individuals to either change their mode of travel from a single-occupancy vehicle, eliminate the trip altogether, or commute at other than peak periods.

Transportation System Management (TSM) - Strategies that are designed to improve traffic flow through modifications in the operation of existing facilities.

Trip Generation - The dynamics that account for people making trips in automobiles or by means of public transportation. Trip generation is the basis for estimating the level of use for a transportation system and the impact of additional development or transportation facilities on an existing, local transportation system. Trip generations of households are correlated with destinations that attract household members for specific purposes.

Truck Route - A path of circulation required for all vehicles exceeding set weight or axle limits, a truck route follows major arterials through commercial or industrial areas and avoids sensitive areas.

Vehicle Miles Travelled (VMT) - A key measure of overall street and highway use. Reducing VMT is often a major

objective in efforts to reduce vehicular congestion and achieve regional air quality goals.

Volume to Capacity Ratio (V/C) - A measure of the operating capacity of a roadway or intersection, in terms of the number of vehicles passing through, divided by the number of vehicles that theoretically could pass through when the roadway or intersection is operating at its designed capacity. At a ratio of 1.0, the roadway or intersection is operating at capacity. If the ratio is less than 1.0, the traffic facility has additional capacity. Although ratios slightly greater than 1.0 are possible, it is more likely that the peak hour will elongate into a "peak period."

Watercourse - A permanent stream, intermittent stream, river, brook, creek, channel, or ditch for water, whether natural or man-made.

Xeriscape - Use of drought tolerant landscaping materials.

Zero Lot Line - A structure distinguished by the location of one exterior wall on a side property line.

Zoning - A legal device used by local jurisdictions to control development density and insure that land uses are properly situated in relation to one another.

Zoning District - A designated section of a city or county for which prescribed land use requirements and building and development standards are uniform.

Zoning Map - Government Code Section 65851 permits a legislative body to divide a county, a city, or portions thereof, into zones of the number, shape, and area it deems best suited to carry out the purposes of the zoning ordinance. These zones are delineated on a map or maps, called the Zoning Map.

Zero Lot Line - A structure distinguished by the location of one exterior wall on a side property line.

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Zoning Map - Government Code Section 65851 permits a legislative body to divide a county, a city, or portions thereof, into zones of the number, shape, and area it deems best suited to carry out the purposes of the zoning ordinance. These zones are delineated on a map or maps, called the Zoning Map.

TECHNICAL APPENDIX



Technical Appendix

Noise Measurement Results

Exhibit A
Noise Measurement Results

SITE: # 1

LOCATION: Southeast corner of Washburn and Edinger

DATE: November 14, 1991

TIME: 1:05 p.m.

MEASURED VALUES (dBA)

LEQ	L1	L10	L50	L90
67.2	75.3	71.3	63.8	55.8

PRIMARY NOISE SOURCES:

Traffic on Edinger Avenue

LAND USE:

Residence

COMMENTS:

Maximum levels are due to truck pass-by's

SITE: # 2

LOCATION: Corner of Heil and Harbor

DATE: November 14, 1991

TIME: 1:25 pm

MEASURED VALUES (dBA)

LEQ	L1	L10	L50	L90
70.7	77.3	74.3	69.3	63.3

PRIMARY NOISE SOURCES:

Traffic on Harvard Boulevard

LAND USE:

Residential

COMMENTS:

Maximum levels are due to truck pass-by's

SITE: # 3

LOCATION: 11355 Warner Avenue (across from Fountain Valley Hospital)

DATE: November 14, 1991

TIME: 12:43 p.m.

MEASURED VALUES (dBA)

LEQ	L1	L10	L50	L90
65.6	74.8	68.8	62.8	56.8

PRIMARY NOISE SOURCES:

Traffic on Warner Avenue

LAND USE:

Residential

COMMENTS:

Maximum levels are due to truck pass-by's

SITE: # 4

LOCATION: Northwest corner of Thistle and Brookhurst Street

DATE: November 14, 1991

TIME: 1:55 p.m.

MEASURED VALUES (dBA)

LEQ	L1	L10	L50	L90
67.0	74.3	70.8	65.3	50.3

PRIMARY NOISE SOURCES:

Traffic on Brookhurst Street

LAND USE:

Residence

COMMENTS:

Maximum levels are due to truck pass-by's

SITE: # 5

LOCATION: 16887 Daisy Avenue (just north of I-405)

DATE: November 14, 1991

TIME: 2:15 p.m.

MEASURED VALUES (dBA)

LEQ	L1	L10	L50	L90
71.6	74.3	72.8	71.8	70.3

PRIMARY NOISE SOURCES:

Traffic on I-405

LAND USE:

Residence

COMMENTS:

Maximum levels are due to truck pass-by's

SITE: # 6

LOCATION: Urbain H. Plannan School (Greenleaf and Warner)

DATE: November 14, 1991

TIME: 2:40 p.m.

MEASURED VALUES (dBA)

LEQ	L1	L10	L50	L90
71.9	78.3	75.8	70.3	63.3

PRIMARY NOISE SOURCES:

Traffic on Warner Avenue

LAND USE:

school

COMMENTS:

Maximum levels are due to truck pass-by's

SITE: # 7

LOCATION: Huntington Valley Baptist Church (corner of Starfish and Banyon)

DATE: November 14, 1991

TIME: 11:20 p.m.

MEASURED VALUES (dBA)

LEQ	L1	L10	L50	L90
68.3	70.8	69.8	68.3	66.3

PRIMARY NOISE SOURCES:

Traffic on I-405

LAND USE:

Church

COMMENTS:

Maximum levels are due to I-405 heavy truck pass-by's

SITE: # 8

LOCATION: Just adjacent to I-405 (near Oscar & Fremont)

DATE: November 14, 1991

TIME: 3:15 p.m.

MEASURED VALUES (dBA)

LEQ	L1	L10	L50	L90
64.4	69.3	66.8	63.8	61.8

PRIMARY NOISE SOURCES:

Traffic on I-405

LAND USE:

Residence

COMMENTS:

Maximum levels are due to helicopter fly-over.

SITE: # 9

LOCATION: *The Great American Learning Center (Talbert & Mt. Norby)*

DATE: *November 14, 1991*

TIME: *3:50 p.m.*

MEASURED VALUES (dBA)

LEQ	L1	L10	L50	L90
71.9	82.3	75.3	67.8	60.3

PRIMARY NOISE SOURCES:

Traffic on Talbert Avenue

LAND USE:

school

COMMENTS:

Maximum levels are due truck pass-by's

SITE: # 10

LOCATION: *Along Brookhurst Street at Adobe River*

DATE: *November 14, 1991*

TIME: *4:15 p.m.*

MEASURED VALUES (dBA)

LEQ	L1	L10	L50	L90
72.2	80.3	77.3	71.3	61.8

PRIMARY NOISE SOURCES:

Traffic on Brookhurst Street

LAND USE:

Residence

COMMENTS:

Maximum levels are due to truck pass-by's

SITE: # 11

LOCATION: *Los Alamos Park (adjacent to I-405)*

DATE: *November 14, 1991*

TIME: *11:52 a.m.*

MEASURED VALUES (dBA)

LEQ	L1	L10	L50	L90
70.3	72.3	71.3	70.3	69.3

PRIMARY NOISE SOURCES:

Traffic on I-405

LAND USE:

Park

COMMENTS:

Maximum levels are due I-405 truck pass-by's

SITE: # 12

LOCATION: *Corner of Jay and Magnolia Street*

DATE: *November 14, 1991*

TIME: *4:50 p.m.*

MEASURED VALUES (dBA)

LEQ	L1	L10	L50	L90
72.4	78.8	76.3	71.3	60.8

PRIMARY NOISE SOURCES:

Traffic on Magnolia

LAND USE:

Residential

COMMENTS:

Maximum levels are due to Magnolia truck pass-by's

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25971	BLACK
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